WELCOME

to the Institute of Science and Technology Austria (ISTA)

Newcomer Guide

Institute of Science and Technology Austria

Version: May 2023

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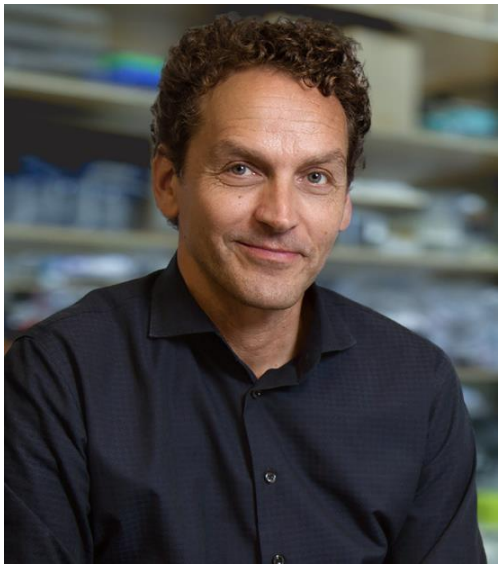
Message from the President



Over the past 15 years, ISTA has become a pioneer in international science. It has achieved remarkable success in attracting outstanding scientists from across the globe, building a culture of collaboration and research beyond the boundaries of individual disciplines, and creating a dynamic and vibrant research environment to pursue groundbreaking scientific discoveries.

As its second President, I plan to ensure that the essential principles that have guided ISTA's success are sustained and nurtured, allowing it to firmly establish itself as a top location for excellent science. I am dedicated to further developing a multi-disciplinary research network in which scientific excellence and innovation can flourish and ISTA scientists can pursue their passion free from external influence. This includes the liberty to establish new scientific fields and initiatives across disciplines, guarantee access to cutting-edge technology, and enable international cooperation. Creating new opportunities for the training of the next generation of scientists will remain central in ISTA's mission and we are committed to partnering with industry in technology transfer activities and towards the public through science outreach initiatives.

As we pursue this next ambitious chapter, I am keenly aware of the ongoing pressing societal challenges of our times and how the scientific community can make meaningful contributions with unique and diverse expertise. It takes a vision and the courage to lead. That is precisely what we do at ISTA, and I am proud to be the leader of this accomplished scientific institution.

Martin Hetzer, ISTA President and CEO

Message from the Managing Director

Every once in a while exceptional things happen, and this is the case for ISTA. Over the course of five short years, a combination of a daring vision, long-term financial backing and hard-work by its founding staff has transformed a mud-filled construction site into a thriving hub of scientific activity that measures itself against the most successful research institutions of its kind in the world.

Both the administration and the scientific service units play a crucial role in this endeavor, as they contribute the necessary support for basic scientific research to reach its full potential. In a sense, they are like the gardener, who waters the seeds and provides them with necessary shelter so that they can grow and become beautiful flowers. I am proud to say that, not only do we strive to attract the best scientists in the world, but, we have also been able to bring in an excellent and ambitious group of people that supports them in every possible way.

By now, we have reached about a quarter of our final size, and walking around the leafy campus, one can still feel the buzz and excitement of a start-up enterprise. It is very important to preserve this “Can-Do” culture, which has made ISTA so successful in the past few years. The last evaluation report confirms that this is the case: “A well-structured and service-minded administrative staff has been appointed, with strong support for the quality of their work voiced at all levels among the scientific staff.”

Georg Schneider, ISTA Managing Director

History

At the 2002 Alpbach Technology Forum Anton Zeilinger suggested establishing a new outstanding institute for basic research. A draft concept was presented in 2005. The legal basis for the institute is the 2006 Federal Law on the Establishment of the Institute of Science and Technology Austria (ISTA). An International Committee consisting of Haim Harari, Olaf Kübler, and Hubert Markl published a report which became the blueprint for the Institute in June 2006. The Board of Trustees was formed in December 2006.

Until the first president was appointed, all executive tasks of ISTA were in the hands of the Executive Committee of the Board of Trustees, chaired by Haim Harari. In particular, until August 2009 Harari led the campus development and faculty hiring and set up all necessary organizational structure. The first employee, Gerald Murauer, was hired at the beginning of 2007, as an interim manager, and was later appointed by the first president as Managing Director. The staff grew slowly and reached half a dozen by the fall of 2007.

The search for the first president was launched in early 2008, with the Executive Committee (of the Board of Trustees) serving as search committee. Several dozen candidates were considered. The Board of Trustees finally elected Thomas Henzinger at the end of 2008. He participated in all major decisions, in particular, in the recruitment of new professors, throughout 2009 and started his full-time employment at the Institute in September 2009.

ISTA was inaugurated in June 2009, when the first theoretical research groups moved into the Central Building and the administration moved into the Voestalpine Administration Building. In addition, the lecture hall, guest house, campus restaurant and utility infrastructure started operating in 2009. The first laboratory building, the Bertalanffy Foundation Building, was opened for experimental research groups in October 2010, Lab Building East in November 2012. By the end of 2012, a total of 21 research groups are working on campus, with five new research groups arriving over the next few months. The planned campus development will allow a growth of up to 1000 scientists and doctoral students by 2026.

Mission Statement

We conduct basic research in the natural and mathematical sciences, and we educate future researchers.

We foster interdisciplinary interaction between scientists.

We provide a world-class environment for science and an attractive destination for doctoral students, postdocs, and professors from all countries.

We are committed to the highest international academic standards, integrity, equality and diversity on campus, as well as respect and recognition for all.

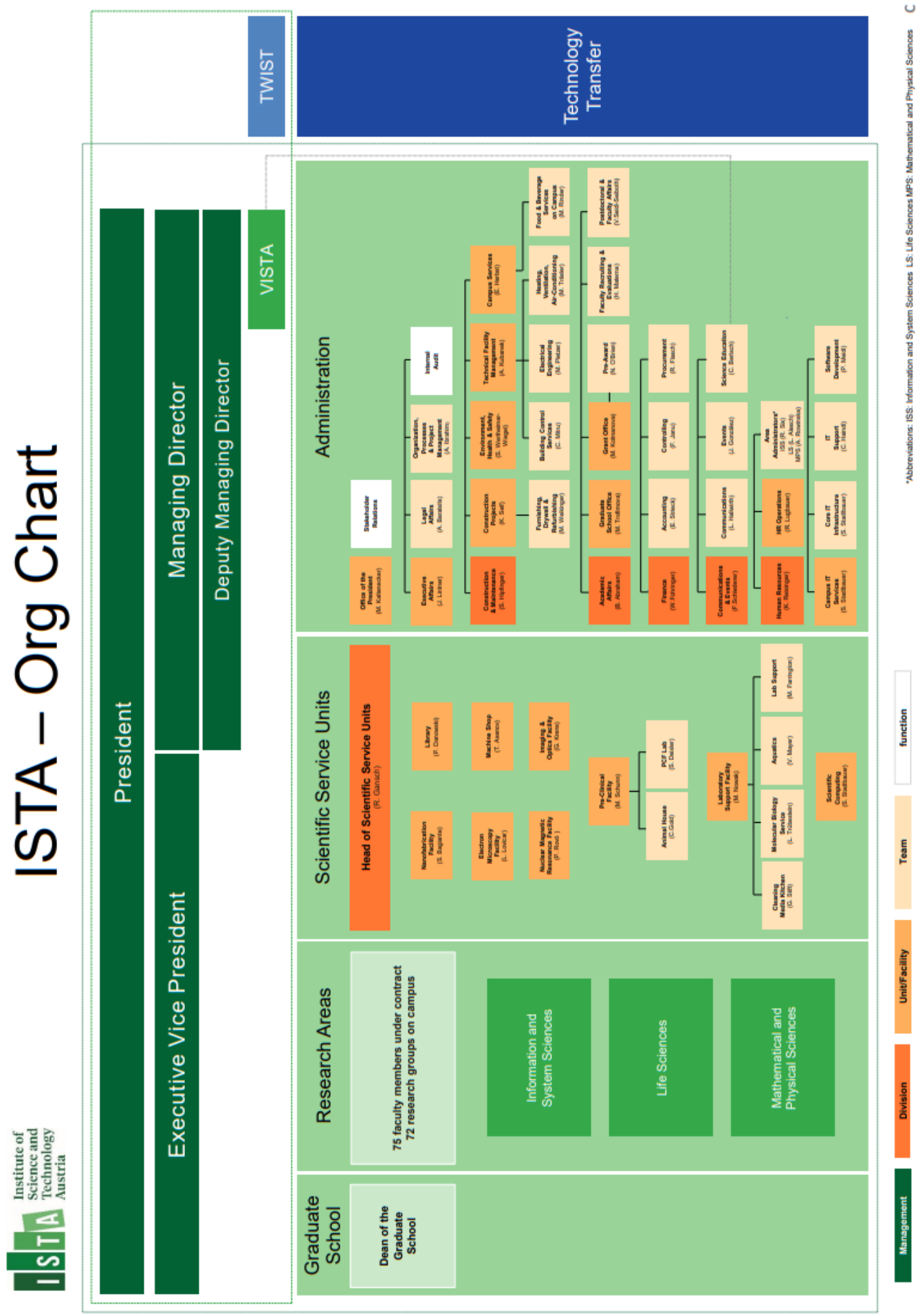
We use the public and private funds entrusted to us in the most effective and efficient manner.

We pursue an active policy of exploiting intellectual property when possible.

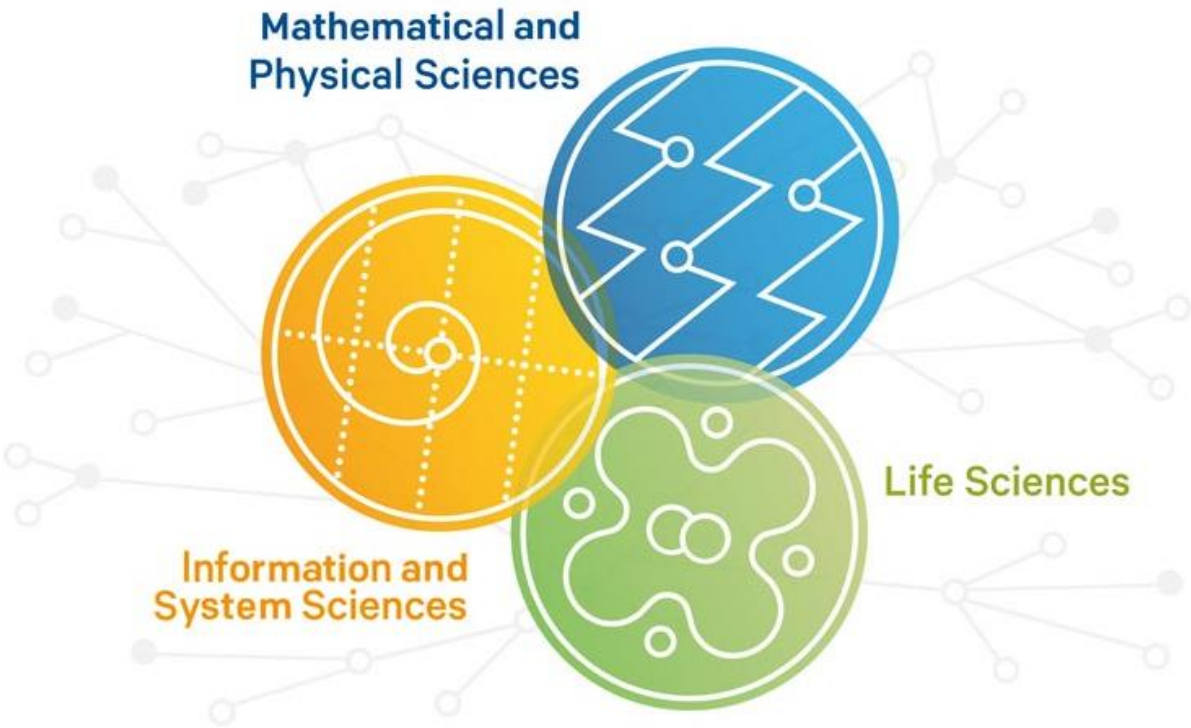
We succeed by contributing to the international scientific community, research in Europe, higher education in Austria, and society at large.

The Eight Principles of ISTA

Organization and Structure (May 2023)



Research Areas



ISTA is organized administratively into three Research Areas. For each of the Research Area a Research Area Chair is appointed for three years and is supported by a Research Area Administrator.

- The **Life Science Area** encompasses many of the biologists and neuroscientists. (Research Area Chair: Prof. Hippenmeyer)

- The **Information and System Sciences Area** provides a home to computationally, mathematically and technologically oriented scientists and engineers, who try to understand complex natural and build complex man-made "systems" (from the brain to the earth, from robots to networks), and who tackle the methodological challenges of big data. (Research Area Chair: Prof. Pietrzak)

- The **Mathematical and Physical Sciences Area** encompasses many of our mathematicians, physicists, chemists, and material scientists. (Research Area Chair: Prof. Seiringer)

While each professor of ISTA will be assigned administratively to one of the three Research Areas, area-initiated activities will be open to all scientists on campus and every Research Group can choose to be cross-listed, on the web and elsewhere, under as many areas as they wish.

Section 1: PEOPLE at ISTA

1. A. Management

President – Martin Hetzer

Professor Martin Hetzer was appointed as the second president of ISTA on February 17, 2022 by the Board of Trustees of ISTA. He is a renowned molecular and cell biologist, born in Austria, with a long career abroad. Prior to joining ISTA, he was a Professor and Senior Vice President at the Salk Institute for Biological Studies in La Jolla, California. His first term as ISTA President started on January 1, 2023.

Since January 1, 2023	President and CEO, ISTA
2021-2022	Senior Vice President, Chief Science Officer, The Salk Institute for Biological Studies, La Jolla, CA
2016-2021	Vice President, Chief Science Officer, The Salk Institute for Biological Studies, La Jolla, CA
2011-2016	Scientific Director, Waitt Advanced Biophotonics Center, The Salk Institute for Biological Studies, La Jolla, CA
2011-2022	Professor, Molecular and Cell Biology Laboratory, The Salk Institute for Biological Studies, La Jolla, CA
2009-2011	Associate Professor, Molecular and Cell Biology Laboratory, The Salk Institute for Biological Studies, La Jolla, CA
2004-2009	Assistant Professor, Molecular and Cell Biology Laboratory, The Salk Institute for Biological Studies, La Jolla, CA
2002-2003	Staff Scientist, EMBL, Heidelberg, Germany
1997-2002	Postdoctoral Fellow at EMBL in Heidelberg, Germany
1997	Ph.D. in Genetics/Molecular Biology, University of Vienna
1992	M.S. in Biochemistry, University of Vienna

Managing Director – Georg Schneider

Dr. Georg Schneider as Managing Director of ISTA heads the administration of ISTA and is responsible for financial management, technical and legal matters, and human resources.

- Since December 1, 2012 Managing Director, ISTA
- 2008-2012 Deputy Director, CIO, Bioinformatics Institute, A*Star, Singapore
- 2007-2012 Principal Investigator, Biomolecular Function Discovery Division, Bioinformatics Institute, A*Star, Singapore
- 2007 PhD/Doctorate in Chemistry (Bioinformatics) at University of Vienna
- 2005 Co-founder at WildOne Information Systems GmbH
- 2001-2007 Bioinformatician and leader of a software development team at Institute of Molecular Pathology (Boehringer Ingelheim), Vienna
- 1999-2004 Lecturer at Institute of Applied Informatics, Vienna University of Economics and Business
- 1998-2000 Research Associate at Institute of Applied Informatics, Vienna University of Economics and Business
- 1999 Master of Business at Vienna University of Economics and Business

1. B. Research Groups at ISTA

Dan ALISTARH Group

Distributed Algorithms and Systems

Distribution has been a major trend in computing over the last decade. This change affects the way we compute in several ways: microprocessor architectures are now multi-core, offering several parallel threads of computation, while large-scale systems distribute storage and computation across several processors, machines, or data centers. To be efficient, software now has to scale, that is, improve its performance when more computation is available. This fundamental change in the way computation is performed puts forward exciting open questions. How do we design algorithms to extract every last bit of performance from the current generation of architectures? How do we design future architectures to support more scalable algorithms? Are there clean abstractions to render high-performance distribution accessible to programmers?

Our group's research is focused on answering these questions. In particular, we are interested in designing efficient, practical algorithms for fundamental problems in distributed computing, in understanding the inherent limitations of distributed systems, and in new ways to overcome these limitations.

Zhanybek ALPICHSHEV Group

Non-linear and Time-resolved Optical Spectroscopy of Strongly Correlated Electron Systems

The main research interest of our group is to understand the behavior of large numbers of electrons in the presence of irreducibly strong interactions through an application of a wide variety of non-linear spectroscopic techniques. The contrast of these methods to the traditional techniques based on linear response - such as transport or scattering experiments - is that although linear response is a very general and powerful way of interrogating a physical system, it has one very important drawback that reduces its applicability for the systems with strong interactions. In the absence of additional external information, the linear response cannot tell a free system from an interacting one. On the other hand it is possible when analyzing the non-linear response of a system, making this approach the most natural way of dealing with strongly correlated many-body systems. To study a system beyond its linear regime one can either drive it strong enough, or to study it on timescales sufficiently short to detect the memory effects in it. Both of these approaches are easily accessible nowadays through the advent of laser able to produce ultra-short femto-second pulses of very strong intensity. An application of several such intense pulses with controlled shape, phase and polarization in a specified succession can produce a wide plethora of information not directly accessible to linear methods.

At this point the current research program can be formulated in terms of several interrelated projects. The most straightforward is to use the time resolved capabilities of pulsed laser techniques to understand the microscopic mechanism behind known phenomena such as high temperature superconductivity. Another direction is to study systems where the very concept of quasiparticles is problematic such as the so-called Bad and Strange Metals and systems near various critical points. Lastly we aim to search for transient non-equilibrium ("Floquet") phases of many-body systems stabilized by strong periodic driving.

Nick BARTON Group

Mathematical Models of Evolution

Nick Barton and his group study diverse topics in evolutionary genetics, but focus on the evolution of populations that are distributed through space, and that experience natural selection on many genes. Understanding how species adapt, and how they split into new species, requires understanding of spatial subdivision, whilst interactions between genes are important in species formation, and in the response to selection. The recent flood of genomic data makes analysis of the interactions amongst large numbers of genes essential.

Eva BENKOVA Group

Hormonal Cross Talk During Plant Organogenesis

Plant hormones are important signaling molecules that control many developmental processes, including cell division, differentiation, organogenesis. Plant hormones can regulate multitude of apparently unrelated physiological processes, their roles often overlap and they mutually modulate their effects. This indicates the important role of synergistic and antagonistic interactions between different plant hormones. However the molecular basis of hormonal interactions is still largely unknown.

The physiologically best characterized interaction is between two plant hormones – auxins and cytokinins. Cytokinin and auxin exhibit synergistic interaction to promote cell division in cell culture, but antagonistic interaction to regulate lateral root development or lateral bud outgrowth. The main aim of our studies is to reveal the molecular components and mechanisms balancing the output of auxin and cytokinin pathways in order to regulate plant organogenesis. We use lateral root organogenesis in Arabidopsis as an ideally suited model system for these questions, because it encompasses fundamental aspects of plant development, such as dedifferentiation, re-entry into the cell cycle, coordinated cell divisions and differentiation, and is in antagonistic manner regulated by auxin and cytokinin.

Recently, we have shown that cytokinin modulation of polar auxin transport represents an important mode of auxin-cytokinin interaction. We further investigate underlying molecular mechanisms with focus on (i) transcriptional and (ii) postranscriptional control of auxin efflux carriers by cytokinin.

To identify novel components of auxin-cytokinin interaction we have applied two main research strategies, transcriptome profiling and a forward genetic screen.

Genes recovered from both transcriptome profiling and a forward genetic screen represent candidates for novel cross-talk components that will help us to reveal mechanisms integrating auxin and cytokinin signaling pathways.

Carrie BERNECKY Group

RNA-Based Gene Regulation

The regulated expression of genetic material is one of the most basic processes of a cell, affecting everything from organism development to environmental response. Through structural studies of the involved complexes, the Bernecky group works to unravel the gene expression regulatory networks that employ RNA as an intermediate. RNA is an important focal point for the regulation of gene expression. Both protein-coding and noncoding RNAs are integral components of diverse regulatory pathways, and often act together with protein cofactors. Despite their importance, an understanding of the mechanisms of action of the involved RNA-protein complexes is lacking. Many of these RNA-containing complexes are flexible, modular, and lowly abundant. For such challenging targets, cryo-electron microscopy (cryo-EM) has emerged as a particularly powerful tool for the determination of near-atomic structures while simultaneously providing insight into their dynamics. Using this and related methods, the Bernecky Lab aims to understand how RNA protein complexes assemble and regulate cellular RNA metabolism.

Bernd BICKEL Group

Computer Graphics and Digital Fabrication

Bernd Bickel is a computer scientist interested in computer graphics and its overlap into animation, biomechanics, material science, and digital fabrication. His main objective is to push the boundaries of how digital content can be efficiently created, simulated, and reproduced using advanced 3D printing technology.

Currently, we are witnessing the emergence of novel, computer-controlled output devices that provide revolutionary possibilities for fabricating complex, functional, multi-material objects and meta-materials with stunning optical and mechanical properties that cannot be manufactured using any other method. Leveraging the potential of this technology is tightly coupled to efficient methods for content creation. Given the digital nature of the process, three factors play a central role: computational models and efficient representations that facilitate intuitive design, accurate and fast simulation techniques, and intuitive authoring tools for physically realizable objects and materials.

Bickel's work focuses on two closely related challenges: (1) developing novel modeling and simulation methods, and (2) investigating efficient representation and editing algorithms for materials and functional objects. Recent work includes: theoretical foundations and practical algorithms for measuring and modeling the deformation behavior of soft tissue; simulating and reproducing fundamental properties, such as elasticity, surface reflectance, and subsurface scattering; and computational design systems for efficiently creating functional artifacts such as deformable objects and mechanical systems.

Timothy BROWNING Group

Analytic number theory and its interfaces

Number theory is concerned with studying properties of integers (or their generalizations), both in their own right or as solutions to Diophantine equations. It is often advantageous to encode properties of number-theoretic objects through analytical constructs, such as the the Riemann zeta function for prime numbers. Tim Browning's research takes this point of view and draws on techniques from analysis to study problems across a spectrum of number theory and algebraic geometry.

The study of Diophantine equations is a subject that is both ancient and difficult, having captured our attention since the time of the ancient Greeks nearly 2000 years ago. It has profound interactions with a host of subject areas, ranging from algebraic geometry to complex analysis via mathematical logic and everything in between. Two fundamental questions that drive research are whether or not it is possible to decide the existence of rational or integer solutions, and whether or not the space of solutions admits any structure.

While tools from algebraic geometry have long been known to be effective in this area, recent discoveries on the arithmetic side have led to a reversal of flow, whereby advances in number theory have opened up new lines of enquiry in algebraic geometry. In the same spirit, a rich seam of interactions continue to be exploited between number theory and additive combinatorics.

Modern analytic number theory has its roots in classical problems in number theory, but it thrives on its interfaces with a broad swathe of topics in mathematics.

Lisa BUGNET Group

Stellar dynamics & Asteroseismology

Our understanding of the universe from exoplanets characterization to galactic archaeology strongly relies on our understanding of stellar dynamics. It was recently discovered that stellar evolution models that take into account the rotation of the star and associated hydrodynamic transport processes predict a much faster rotation rate than what is observed. Since then, it is of paramount importance to understand how angular momentum is redistributed inside stars, as it could strongly modify our theory of stellar evolution, and thus the estimation of ages in the universe. In large part, this turnaround was made possible by Asteroseismology, which then became one of the leading methods for the characterization of stars. This recent branch of stellar physics consists of the analysis of oscillations of stars induced by stationary waves. It is the analogue of seismology on Earth, since it allows to probe the internal structure and the dynamics of the body.

The research activities of the Bugnet group aim at understanding the evolution of stars and their dynamical processes thanks to Asteroseismology. Stellar magnetic fields, from the core to the envelope of the star, are at the center of the group's research. So far, they have largely been excluded from stellar evolution models due to a lack of observation and of theoretical prescriptions. To make the necessary breakthrough on our understanding of poorly characterized but essential stellar magnetic fields, the group brings together in synergy observational constraints from Asteroseismology, modeling of stellar evolution, and theoretical prescriptions.

Krishnendu CHATTERJEE Group

Computer-aided Verification, Game Theory

The Chatterjee group is interested in the theoretical foundations of game theory and formal verification. Game theory in the formal verification of software involves the algorithmic analysis of various forms of games played on graphs. This broad framework allows effective analysis of many important questions of computer science and helps in the development of software systems. The Chatterjee group works on theoretical aspects for the better understanding of games and develops new algorithms, presenting the theoretical foundations for the formal verification of systems.

Bingqing CHENG Group

Computational Materials Science

The building blocks of matter are electrons and atomic nuclei, whose behavior follows the laws of quantum mechanics. By solving the Schrödinger equation, one can predict the properties of any material, including existing or novel compounds yet to be synthesized. However, there is a catch. As the number of electrons and nuclei increases, the complexity involved in solving the equation soon becomes intractable even with the fastest supercomputers. In fact, atomistic simulations based on quantum mechanics are still unaffordable for systems with more than a few hundred atoms, or for a time period longer than a nanosecond.

The Cheng group is particularly interested in developing methods to extend the scope of atomistic simulations, in order to understand and predict materials properties that are hard to access. The group deploys and designs a combination of techniques encompassing machine learning, enhanced sampling, path-integral molecular dynamics, and free energy estimation. The systems of study include energy materials, aqueous systems, and matter under extreme conditions.

Sylvia CREMER Group

Cooperative Disease Defenses in Insect Societies

Sylvia Cremer is an Evolutionary Biologist interested in behavioral ecology and evolutionary immunology in ant societies. With her team, she studies individual and collective anti-pathogen defenses of ants, by a combination of behavioral observations, physiological and molecular measures of immunity, and chemical analyses.

Colonies of social insects, like other societies, face the problem of a high risk of disease transmission among the group members. This is primarily due to close interactions and high within colony densities. Despite this risk, epidemics occur extremely rarely in the colonies of social insects (e.g. bees, ants, termites), as they have evolved collective anti-pathogen defenses that complement the individual immune systems of group members. This "social immunity" comprises a) hygiene behaviors, such as mutual allogrooming, b) joint physiological defenses, as the

production and application of antimicrobial substances and c) the modulation of interaction types and frequencies upon exposure of group members to pathogens.

The Cremer group studies all aspects of social immune defenses in ants to learn more about disease management and epidemiology in societies.

Jozsef CSICSVARI Group

Systems Neuroscience

Committing Transforming novel information to memory is essential if we want to remember it again later. Memory formation is therefore crucial for learning new facts or skills. The group of Joszef Csicsvari studies the encoding of learning in the brain.

The Csicsvari group aims to understand how learning processes are encoded in our leads to memory formation. During learning, memory traces are processed, encoded and stored in neuronal circuits. In their work, the Csicsvari group focuses on the hippocampus, a brain area known to be important for memory formations, as well as on its interaction with other regions in the cortex. They attempt to understand how neuronal circuits process mnemonic information and form memory by recording neuronal activity during learning tasks and sleep using the methods of systems neuroscience, such as the monitoring of electrical activity of many neurons in different brain circuits. The large volume of complex electrophysiological data collected in these experiments requires sophisticated computer analysis techniques as well as the development of new analysis techniques. Also, the group researches the role of oscillatory activity in the hippocampus, which is associated with spatial working memory, in particular the physiological mechanisms behind these oscillations and their role in behavior.

Johann DANZL Group

High-resolution Optical Imaging for Biology

The central aim of the Danzl lab, starting in early 2017, will be to shed light on problems of biological and ultimately also medical relevance using a set of advanced light microscopy tools.

In terms of microscopy, the emphasis will be on approaches that are not limited in their spatial resolving power by the diffraction of light waves. This diffraction resolution limit entails a maximally achievable resolution of ~200 nm for conventional light microscopy. Diffraction-unlimited methods with a resolution of tens of nanometres allow capturing more details of biological specimens than conventional light microscopy approaches.

Analyzing living cells and tissues at high spatial and temporal resolution in a minimally perturbative way poses a significant challenge. To this aim, we will engage in the development of novel imaging approaches, building on our expertise both in fundamental physics and in high-resolution imaging, and we will integrate the imaging with the latest technologies to manipulate cells and tissues and to label them for imaging.

The biologists in our interdisciplinary group will thus be able to directly employ highest performance optical microscopes tailor-made for addressing a specific biological problem while the physicists/engineers in the group will enjoy their developments being driven by biological problems and finding immediate application.

Mario DE BONO Group

Genes, Circuits, and Behavior

The De Bono Group seeks to discover and then dissect basic molecular mechanisms that underpin the functions of neurons and neural circuits. Neurons are highly specialized cells and many fundamental questions about their organization, function and plasticity remain unaddressed.

They initiate many of their studies in C. elegans, because of its advantages for molecular and cellular neuroscience. They can identify and visualize each neuron of this animal in vivo, selectively manipulate it using transgenes, and monitor its activity with genetically-encoded sensors. Powerful genetics and advanced genomic resources make high-throughput forward genetics and single neuron profiling possible. They can also complement their genetics with excellent biochemistry, to get at molecular mechanisms that are usually conserved from the worm to man. They aim to take discoveries made in the worm into mammalian models. To achieve their goals they are deconstructing global animal states in molecular and circuitry terms. An animal state is a coordinated response to a threat (e.g. predators) or opportunity (e.g. a potential mate). Such states arise from dynamically reconfigured neural circuits that optimize the response to the situation encountered. Hallmarks include a change in arousal, rearranged responsiveness to sensory cues, and altered physiology, with effects that often outlast the evoking stimulus.

Herbert EDELSBRUNNER Group

Algorithms, Computational Geometry and Topology

The core of Herbert Edelsbrunner's research is a combination of mathematics and computer science, always driven by relevant questions in applications. During a past shift from geometry to topology (which are related subjects without clear separation), the group noticed an increase in relevant application questions we could address. These include questions in scientific visualization, structural molecular biology, systems biology, but also geometry processing, medical imaging, and orthodontics. The common theme is the importance of shape and the recognition, matching, and classification of shape. Topology is the area within mathematics whose methods most directly speak to that need. Algorithms and computer software are needed to make mathematical insights useful in applications, which is the motivation to study in topology and also geometry from a computational point of view.

Laszlo ERDÖS Group

Mathematics of Disordered Quantum Systems and Matrices

Laszlo Erdös is a mathematician working in mathematical analysis and probability theory focusing on problems arising from physics. His earlier work was mainly in the area of quantum mechanics. He worked on spectral estimates of quantum systems in non-homogeneous magnetic fields and he derived the quantum Boltzmann equation and the quantum Brownian motion from first principles of quantum mechanics. In many-particle quantum mechanics his main result was the rigorous derivation of the time dependent Gross-Pitaevskii equation for the Bose-Einstein condensate. In recent years his interest shifted gradually to questions on disordered systems, especially on spectral universality of large random matrices. Recently, together with collaborators he solved two

long-standing problems related to the Wigner-Dyson-Mehta conjecture in the theory of random matrices.

Johannes FINK Group

Quantum Integrated Devices

Johannes Fink is an experimental physicist studying quantum effects in electrical, mechanical and optical chip-based devices. His main objective is to advance and integrate quantum technology for computation, communication and sensing in the post-CMOS era.

Our research is positioned at the intersection of quantum optics and mesoscopic condensed matter physics. In our lab we will focus on developing novel types of superconducting and photonic devices using advanced MEMS fabrication technologies. One of our main goals is to develop an integrated acousto-optic link to enable quantum communication between superconducting microwave qubits via telecom wavelength fiber optics.

Julian FISCHER Group

Theory of Partial Differential Equations, Applied and Numerical Analysis

Julian Fischer is a mathematician working in the fields of applied analysis and partial differential equations arising in the applied sciences. His research frequently also features connections of mathematical analysis with numerical analysis and stochastics. Partial differential equations (PDEs) are a fundamental tool in the description of many physical phenomena. To name a few examples, the Navier-Stokes equation provides a description of the flow of a fluid, while the behavior of electromagnetic fields is determined by Maxwell's equations. Associated with partial differential equations, there are many mathematical questions: Does a given PDE have a solution? Is the solution unique or does the equation admit additional unphysical solutions? How may one approximate the solution for practical purposes? Is it possible to use a simpler equation in a given physical situation? In its current focus topics, Fischer's group addresses in particular the last of these questions: For most physical situations, many PDE-based models with different degrees of accuracy are available. One would then like to select the PDE that may be solved with least computational effort while providing a sufficiently accurate description of physical reality. To facilitate the selection of the model, it is highly desirable to estimate the modeling error associated with a given model. One focus topic of Fischer's group are a posteriori modeling error estimates, a mathematical concept that uses an (exact or numerical) solution of a PDE model as an input and provides a bound on the modeling error, as compared to a given more accurate model. The second focus topic of Fischer's group is stochastic homogenization: Many real-world materials feature random heterogeneities on small scales and nevertheless behave on large scales like a homogeneous material. The subject of the theory of homogenization is the derivation of effective models for the macroscopic behavior of a material as a limit of material models which include the microstructure of the material. The homogeneous effective model is typically easier to solve computationally, but provides a less accurate description of the material behavior ("homogenization error"). Of particular interest to Fischer's research group is the quantitative theory of stochastic homogenization, which for example is concerned with quantitative estimates for the homogenization error.

Stefan FREUNBERGER Group

Materials Electrochemistry

Life uses electron transfer reactions to, e.g., store or retrieve energy and to produce useful chemicals and materials. The Freunberger group works on electrochemical materials sciences with broadly similar goals.

The group's primary research interest lies in the fundamental science of electron and ion conducting and redox active materials (inorganic, organic and polymeric) as well as their mutual interactions in the working environment of electrochemical devices, particularly, energy storage devices such as rechargeable batteries. The results of this fundamental research find use in clean, efficient and sustainable energy sources. The foundations of the group's research are (i) the synthesis of new conducting and redox active materials and a fundamental understanding of charge-carrier transport and electrochemical reactions, (ii) advanced physico-chemical and spectroscopic investigations to understand the mutual behavior of the materials in their working environment as well as surface and interface processes, and (iii) the application in the electrochemical device that is a complex electrochemical reactor.

Jiri FRIML Group

Developmental and Cell Biology of Plants

Plant development is characterized by its pronounced adaptability. Extensive post-embryonic development involving permanent stem cell populations (meristems), de novo organ formation and changes in growth direction, provides plants with an exceptional flexibility in terms of growth and survival. Endogenous factors called plant hormones coordinate development and physiology and tailor them to various environments. Our objective is to elucidate mechanism of action on plant hormones and other signaling molecules with a special focus on the hormone auxin and its polar, intercellular transport.

Polar auxin transport provides positional and directional information for many aspects of plant development. Its key feature, the directionality of intercellular flow, results from the asymmetric, subcellular localization of the PIN auxin transporters. Dynamic changes of PIN polarity in response to environmental and developmental signals have been observed to divert auxin flow during gravitropic response, embryogenesis, postembryonic organogenesis and tissue regeneration. In addition, auxin itself can regulate activity of its transport by influencing the subcellular distribution of plasma membrane proteins including PINs by targeting their endocytosis. Our efforts focus on elucidating various aspects of this regulatory mechanism including: (i) Molecular and cellular mechanism of polar auxin transport; (ii) Mechanisms of polar targeting in plants; and (iii) Mechanisms of endocytosis and recycling in plants with special focus on regulation of this process by different signals including auxin itself. Many of our studies are relevant for agricultural applications since they provide a conceptual possibility to manipulate developmental processes including plant architecture such as root and shoot branching and fruit set and ripening.

Carl GOODRICH Group

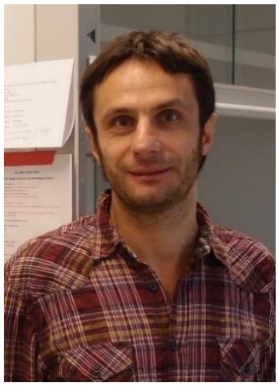
Soft matter theory and materials design

How can materials dynamically control or remodel their own internal structure to affect their behavior? How can the statistics of structural disorder be biased to produce non-trivial properties? How can one discover novel equilibrium and non-equilibrium assembly mechanisms in highly parameterized systems? Questions like these are a necessary step in the development of synthetic biology, where non-biological materials and nano-scale machines operate with the complexity and functionality found only in biology.

Towards this end, the Goodrich Group uses computational and theoretical tools to discover basic soft matter principles that could one day lead to new functional materials as well as deepen our understanding of complex biological matter. The goal is to first understand general or even universal mechanisms that are not overly sensitive to the details of a given experimental system, and then work with experimentalists to test these ideas in practice. The group deploys and develops a number of numerical techniques, from molecular dynamics and Monte Carlo to machine learning and automatic differentiation. Specifically, the researchers are at the forefront in the development of trainable physics models, which provide a new and powerful way to explore high-dimensional systems and discover complex, non-trivial phenomena.

Calin GUET Group

Systems and Synthetic Biology of Genetic Networks



The Guet Group's scientific curiosity is centered around understanding systems of interacting genes and proteins that constitute themselves into genetic networks in bacteria. These bio-molecular networks are involved in a constant process of decision making and computation that takes place over various time scales: from seconds to the division time of an organism and beyond. By studying existing networks or by constructing networks de novo in living cells using synthetic biology approaches, he aims to uncover universal rules that govern biological genetic networks.

The group uses *Escherichia coli* as our favorite model system and is generally interested in microbial genetic systems given their relative simplicity and powerful experimental genetic tools available. An emphasis is placed on understanding the molecular biology and physiology of the single cell, since often population level measurements mask the behavior of the individual cell. To this end they use and develop in vivo techniques that are minimally invasive in order to quantitatively characterize the temporal dynamics of gene expression.

Edouard HANNEZO Group

Physical Principles in Biological Systems

Edouard Hannezo is interested in understanding how cells “know” how to make the right decisions at the right time and at the right place during development and normal tissue homeostasis, as well as how these decisions are dysregulated during cancer initiation. Coming from a theoretical physics background, he uses methods ranging from mechanics and active hydrodynamics to population dynamics and statistical physics, both to develop new generic biophysical frameworks, as well as in the context of collaborations with developmental and stem cell biologists.

He is particularly interested in design principles and processes of self-organization in biology, at various scales. Examples of problems he is working on, at three different scales, include: 1/ how do cytoskeletal elements, which generate forces within cells, self-organize to produce complex spatio-temporal patterns, 2/ how do cells concomitantly acquire identities and shape a tissue during development, and 3/ how does complex tissue architecture derive from simple self-organizing principles, using branching morphogenesis as a prototypical example, and the framework of branching and annihilating random walks.

Tamas HAUSEL Group

Geometry and its Interfaces

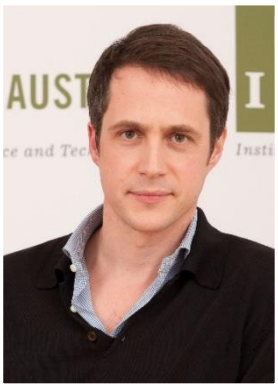
Tamas Hausel's research interests include combinatorial, differential and algebraic geometry and topology. The main tool used is representation theory, connecting our investigations to number theory and physics. The more specific focus is the study of the geometry, topology and arithmetic of several moduli spaces appearing in supersymmetric quantum field theories including moduli spaces of Yang-Mills instantons in four-dimensions, the moduli space of magnetic monopoles in three dimensions and the moduli space of Higgs bundles in two dimensions.

The questions we are concerned with have motivations in mathematical physics, such as string theory and topological quantum field theory as well as in number theory, in particular in the realm of the Langlands program. The immediate question is to describe the topology of such spaces, starting with the structure of holes of various dimensions.

Besides the traditional techniques of global analysis and Morse theory, we also employ arithmetic methods, which in turn will invariably lead to problems in representation theory of various objects in algebra. Examples include the representation theory of quivers, finite groups and algebras of Lie type and various Hecke algebras. What results is a colorful palette of subjects in mathematics and theoretical physics and our focus is on the interconnectedness of these fields inside mathematics.

Carl-Philipp HEISENBERG Group

Morphogenesis in Development



Carl-Philipp Heisenberg studies the molecular and cellular mechanisms by which vertebrate embryos take shape. To obtain insights into critical processes in vertebrate morphogenesis, such as cell adhesion, migration, and polarization, the Heisenberg group focuses on gastrulation movements in zebrafish. Gastrulation is a highly conserved morphogenetic process describing the transformation of a seemingly unstructured blastula into a highly organized gastrula-stage embryo composed of the three germ layers ectoderm, mesoderm and endoderm. Zebrafish is an ideal organism to study gastrulation movements as embryos develop outside of the mother and are easily accessible for both experimental and genetic manipulations. To analyze gastrulation movements, the Heisenberg group uses a multi-disciplinary approach employing a combination of genetic, cell biological, biochemical and biophysical techniques. Utilizing these different experimental tools, they are unraveling the molecular and cellular mechanisms underlying zebrafish gastrulation movements.

Monika HENZINGER Group

Algorithms

To save resources in computing the goal is usually to minimize computing time and storage space. The research field of efficient algorithms and data structures wants to understand how to save these resources, both by designing better algorithms and by proving bounds on the limits of possible savings. One particular area of focus in our research on efficient algorithms are dynamic settings where the input to the program is updated repeatedly and after each update the new solution needs to be found much faster than restarting the computation on the new input.

A second area of our research is designing algorithms that protect the privacy of the input data. This can be achieved by adding suitable noise to the input and the goal of the research is to minimize the amount of noise as it reduces the information that can be gained from the output and can also slow down the algorithm. The amount of noise depends on what information needs to be computed from the data and what kind of privacy guarantees are desired. Again, our focus is on the dynamic setting where the input data changes continuously.

A third area of our research is to turn the theoretically best algorithms into simple, practical algorithms that we implement and evaluate empirically. As before we are especially interested in algorithms for dynamically changing inputs.

Thomas HENZINGER Group

Design and Analysis of Concurrent and Embedded Systems

Tom Henzinger's group is interested in mathematical methods for improving the quality of software. More and more aspects of our everyday lives are controlled by software and over 90% of the computing power is in places you wouldn't expect, such as cell phones, kitchen appliances, and pacemakers. Computer software has, at the same time, become one of the most complicated artifacts produced by man. It is therefore unavoidable that software contains bugs, and dealing with these bugs is a major technical challenge.

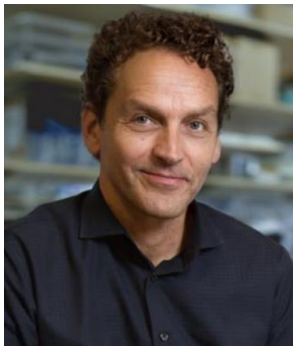
The group focuses on concurrent software and on embedded software. A concurrent system consists of many parallel processes that interact with one another, whether in a global network or on a single chip. Hardware manufacturers pack an ever increasing number of microprocessors on one chip, generating massive parallelism inside each computer. These systems are difficult to program, creating one of the biggest challenges of computer science today. Concurrent software is extremely error-prone because of the very large number of different interactions that are possible between parallel processes. They cannot be exhausted by testing the system, and concurrency bugs sometimes show up after many years of flawless operation of the system.

An embedded system is a software system that interacts with the physical world, such as the electronic components in a car or aircraft. For such embedded systems, the main technical challenge is to get the software to react in real time. For a flight control system it is not only critical that the software computes the right results, but also that it does so sufficiently fast.

Our tools for building more reliable software are mathematical logic, automata theory, and models of computation. Some of these models can be used also to mimic certain biological systems, making the field inherently interdisciplinary. Computational models of, say, a living cell are different from mathematical equations as they can be executed on a computer and used to study the causal relationships between different events in the cell. This new field of research has been dubbed "Executable Biology."

Martin HETZER Group

Protein Homeostasis and Aging

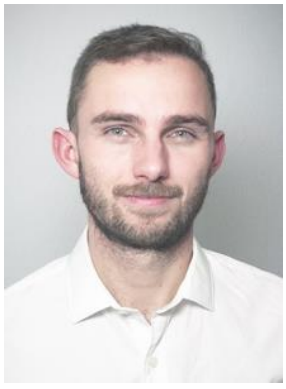


Old age is the major risk factor for the development of neurodegenerative diseases such as Alzheimer's disease and a series of other ailments. The Hetzer lab is studying the impact of cumulative changes during adulthood on health and the development of disease, focusing on cell maintenance and repair mechanisms. They are particularly interested in understanding how non-dividing cells such as neurons function over the course of a lifetime and how cells lose control over the quality and integrity of proteins and important cell structures during aging. The ultimate goal is to utilize these mechanisms to delay age-related decline of organs with limited cell renewal such as the brain, pancreas and heart.

The group applies genomics, proteomics and advanced imaging techniques to pose questions about how adult tissues are maintained and repaired and why long-lived cells fail to work properly as a cell ages. Recent studies have shown that mammalian tissues are mosaics composed of cell populations with vastly different life spans ranging from days to years. The Hetzer laboratory discovered long-lived proteins (LLPs) in the nucleus, which exhibit no or very little protein turnover in the adult brain. The functional decline of LLPs could be a major contributor to age-related changes in the survival of nerve cells. A focus of his lab is to understand what allows LLPs to stay intact throughout an organism's entire life span. In people with neurodegenerative diseases, it appears that LLPs in older cells lead to the decline of the nucleus. Understanding why this happens is the first step to potentially prevent and treat disorders like Alzheimer's disease.

Andrew HIGGINBOTHAM Group

Condensed Matter and Quantum Circuits



It is possible to construct a microchip whose electronic behavior differs qualitatively from its constituent pieces. New particles and phases of matter can emerge, such as fractionalized electrons that are neither fermions nor bosons, and quantum-critical metals that defy long-held beliefs on the nature of conductivity. We build such chips from effectively low-dimensional materials, pattern them with nano-lithography, and measure them at ultralow temperatures. In many ways, although the basic laws describing these systems are well known and immutable, it is as though an entirely new physical reality arises once such a chip is constructed.

The group aims to develop new methods for probing these interesting systems using the toolkit of quantum electrical circuits. Deploying quantum circuits in this context enables us to gain information on dynamics and multi-point correlations, and to explore intriguing questions surrounding quantum coherence in these unusual phases. Our current, specific focus is the development of quantum-enhanced electrometers, and their application to phases of quantum matter.

Simon HIPPENMEYER Group

Genetic Dissection of Cerebral Cortex Development

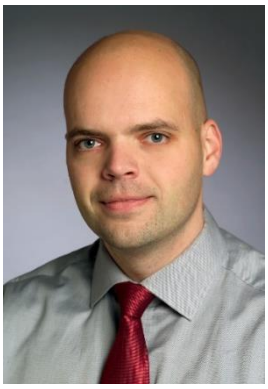
The human brain, of which the cerebral cortex is the largest structure, is composed of a sophisticated network of billions of interconnected neurons. Precise mapping of the cortical architecture is an essential starting point to learn how cortical circuits account for behavior and cognitive activity, and how alterations in the cytoarchitecture might lead to neurological and psychiatric disorders or dementia. We use multidisciplinary approaches including the genetic MADM (Mosaic Analysis with Double Markers) technology with the aim to trace the logic of how individual neurons successively build up the cortical entity during development. MADM technology offers an unparalleled method to visualize and concomitantly manipulate sparse clones and small subsets of genetically defined neurons at the single cell level in mice.

In other words, if one imagines looking at a forest afar it is very difficult to recognize the trimming of a single branch of an individual tree. However, when a single tree stands lonely in a field one can easily observe the snip of even the finest branches of that tree.

Similarly, with the MADM method we can now navigate through the dense brain meshwork and follow individual neurons and their fine branches in differently shining red and green colors. An added critical feature of MADM is the possibility to not only label single cells but at the same time also pursue genetic manipulations: it is feasible to label certain neurons that are wild-type in one color, say green. At the same time, MADM can also label in red genetically mutant neighboring sisters of the 'healthy' green cells. This allows comparison of wild-type and mutant neurons side by side. We apply MADM to study the fundamental cellular, molecular and epigenetic mechanisms underlying the critical neurodevelopmental processes that control the assembly of the cortex cytoarchitecture.

Björn HOF Group

Nonlinear Dynamics and Turbulence



Björn Hof and his group investigate how complex chaotic dynamics develop in nonlinear systems. Fluid turbulence is the probably most common and at the same time most relevant example of spatio-temporal disorder in nature. Despite its ubiquity insights into this phenomenon are very limited. While the majority of turbulence research is concerned with statistical properties at very high velocities our approach is to investigate turbulence when it first arises form laminar motion. We combine detailed laboratory experiments with highly resolved computer simulations and apply methods from nonlinear dynamics and statistical physics. Doing so enables us to decipher key aspects of the transition scenario and to identify universal features shared with out of equilibrium systems in many other areas of physics. In some cases the new insights obtained can be directly applied to control turbulent flows and we actively develop such methods. Overall we hope that our approach will eventually lead to a more fundamental understanding of the nature of turbulence, going beyond a purely statistical view.

Further projects currently investigated in our group are concerned with complex fluids such as polymer solutions, surfactants and bacterial suspensions. While at low concentrations the dynamics are similar to those of ordinary fluids, from a certain threshold the dynamics often change abruptly giving rise to unexpected phenomena.

Onur HOSTEN Group

Quantum Sensing with Atoms and Light

How can we better understand and exploit the quantum mechanical world of atoms and light?

Onur Hosten's research centers on developing innovative techniques to control the quantum properties of atomic and optical systems with an eye towards applications in the domain of quantum-enabled technologies. A prime example of these technologies is precision sensing. The Hosten group will focus on developing new sensing methods that gainfully utilize the phenomenon of quantum entanglement. By manipulating the collective properties of cold atomic ensembles in optical cavities, the group aims to build precision force sensors, and in the process, seek to gain insight into fundamental topics like the nature of quantum measurements. Using these sensors, the group's long-term goal is to explore challenging experimental questions such as the nature of dark matter, and the interplay between quantum mechanics and gravity.

Maria IBANEZ Group

Functional Nanomaterials

The group research interest lies on the development of surface modified colloidal nanocrystals and the understanding of their chemistry and physics with the aim to use them as functional building blocks. In particular, our work is focused on the synthesis of high-quality inorganic nanocrystals, the engineering of their surface, and their assembly and consolidation into functional nanocrystal-based solids to target applications such thermoelectrics or catalysis, as well as to develop fundamental understanding of structure-property relationships. The interdisciplinary nature of our research aims for a collaborative team of physicists, chemists and material scientists.

Peter JONAS Group

Synaptic Communication in Hippocampal Microcircuits

Peter Jonas works on the understanding of the function of neuronal microcircuits. This is one of the major challenges of life science in the 21st century. The human brain is comprised of approximately 10 billion of neurons, which communicate with each other at a huge number (~1015) of specialized sites. These sites of contact and communication between neurons are termed synapses.

Very broadly, synapses in the brain fall into two categories: excitatory synapses releasing the transmitter glutamate and inhibitory synapses releasing the transmitter γ-aminobutyric acid (GABA). The Jonas Group wants to quantitatively address the mechanisms of synaptic signaling at these highly specialized synaptic sites in the brain. To achieve this, they will use multiple-cell recording, subcellular patch-clamp techniques, Ca2+ imaging, and modeling.

Maximilian JÖSCH Group

Neuroethology Lab

Maximilian Jösch and his group study the neuronal basis of innate behaviors; the processes implemented by neuronal circuits to transform sensory information into motor commands. To accomplish this goal they use a multidisciplinary approach that takes advantage of techniques to monitor brain activity during animal behavior. This is combined with novel techniques to perturb neuronal dynamics, edit genetic information and map the connectivity diagrams of neuronal networks to reveal the principles and motifs of neuronal computation in fly and mouse.

Vadim KALOSHIN Group

Dynamical systems, celestial mechanics and spectral rigidity

"Can you hear the shape of a drum?" Essentially, this question (and title of a famous paper by M. Kac) asks if the sound of a drum determines its shape—a question that has deep mathematical roots, and for the most part, remains open. Vladimir Kaloshin and his group explore how deformations of a drum deform its sound, and if it is possible to change the shape of a drum without changing the sound. In particular, they study the Laplace spectrum of convex, planar domains, and work to show that these eigenvalues determine such domains locally. Similar questions can be posed for Riemannian manifolds, and are also of interest to the group. Another main focus of the Kaloshin group is stochastic behavior in our solar system. Between the orbits of Mars and Jupiter, there are nearly two million asteroids with diameters greater than one kilometer. When astronomers look at the distribution of these asteroids with respect to semi-major axis or—equivalently—period of this asteroid belt, they see gaps, known as Kirkwood gaps. These gaps are located near low-order resonances with Jupiter, most famously with period ratios of 1:3, 2:5, and 3:7. The 1:3 gap is explained by a well-known mechanism proposed by Wisdom, and is supported by numerical experiments. This mechanism also seems to apply to the 2:5 gap. In this area, the Kaloshin group seeks to achieve two goals: first, to develop a mathematical theory of stochastic behavior at the gaps 1:3, 2:5, 3:7 and second, to explain the shape of the distribution of these gaps.

Georgios KATSAROS Group

Nanoelectronics

There is an intense effort in information technology to find solutions to the problems emerging from the miniaturization of conventional complementary metal oxide semiconductor devices. In microelectronics, researchers are trying to create ever smaller and faster transistors by decreasing their dimensions or by choosing materials with different, more promising properties.

Researchers in basic research on the other hand are investigating new concepts which would allow information processing to operate on completely different principles. In this line, Loss and DiVincenzo suggested the use of electron spins confined in lithographically defined quantum dots (QDs) as elementary quantum bits (qubits) to realize a quantum computer (QC). So far, most of the experimental semiconductor work related to QC has focused on GaAs-based QDs. In GaAs QDs, however, the quantum coherence of electron spins is lost on relatively short time scales due to the hyperfine interaction with the nuclear spins.

In parallel to the development of spin qubits (SQs), there has recently been a huge wave of excitement in the prospect of using topological qubits (TQs) for QC. Such TQs are predicted to be robust versus decoherence. In the main focus of these proposals are the so-called Majorana fermions, introduced by Majorana more than 70 years ago. Various studies have suggested the use of topological insulators and semiconductor nanowires for the realization of Majorana fermions. Indeed, first experimental signatures of Majorana fermions have been reported in the past few years.

An intriguing perspective for quantum computation would open up if one were able to coherently transfer quantum information between SQs and TQs so as to combine the advantages of the two systems (SQs: easier manipulation and read out – TQs: more robust). In view of such a long-term dream, Ge-based nanostructures emerge as a very promising system, since they demonstrate an enormous potential both for SQs and Majorana bound states.

In our group, we study spin qubits in Ge-based systems, self-assembled QDs and lithographically defined QDs in two dimensional hole gases. In parallel we aim to understand whether Majorana fermions can be realized and detected in a hole-type system.

Anna KICHEVA Group

Tissue Growth and Developmental Pattern Formation

Individuals of the same species differ in size, but their organs have reproducible proportions and patterns of cell types. This requires the coordination of tissue growth with the generation of diverse cell types during development. We study how this coordination is achieved in the vertebrate neural tube, the embryonic precursor of the spinal cord and brain. In this organ, an elaborate pattern of multiple types of neuronal precursors forms along the dorsoventral axis at the same time as the tissue increases considerably in size. This fascinating process is orchestrated by signaling molecules, called morphogens, which are secreted from the opposite poles of the neural tube and form gradients of concentration in the tissue. While it is well established that morphogens instruct cells about their identity, many questions are still open. How do cells integrate signaling from opposing morphogen gradients? How do morphogens control tissue growth? How does tissue growth influence morphogen signaling and pattern?

To address these questions, we develop and use quantitative experimental approaches. We work in close collaborations with physicists to relate experiments to theoretical frameworks. We are particularly interested in imaging the dynamics of morphogen signaling and growth in living tissues. Our work incorporates a range of models, from mouse and chick embryos to mouse embryonic stem cells.

Lefteris KOKORIS KOGIAS Group

Secure, Private, and Decentralized Systems (SPiDerS)

In the last decades, computing enabled society to interconnect transcending the physical limits of its distributed nature. Trust is often sacrificed in the name of efficiency and speed that our era impatiently demands. Speed, however, is the enemy of trust as building trust requires friction and time. Several traditional trust-oriented institutions that ought to prioritize security and privacy over efficiency, such as banks, media, and governments, are called to adapt to this ongoing digital revolution. Our fast and interconnected digital world brings great challenges: our systems are left vulnerable to potential adversaries that can exploit the security weaknesses introduced to cope with the ferocious demand for speed.

The SPiDerS group sheds light on the benefits and shortcomings of this latest explosion of interest in the decentralized trust technologies. The group focuses on Byzantine Fault Tolerant systems and algorithms, where various interesting research questions have emerged: How can the current financial ecosystem integrate scalable decentralized systems? How can we scavenge randomness from multiple semi-trustworthy players to run publicly-verifiable lotteries or audit elections? The driving force and inspiration of the group's research focus stems from both the technical challenges presented in existing systems, as well as the socio-technical barriers faced by conventional institutions. The SPiDerS group aspires to contribute to this rapidly-evolving digital world by designing and building secure scalable decentralized systems with real-world impact.

Vladimir KOLMOGOROV Group

Computer Vision and Discrete Optimization Algorithms

Vladimir Kolmogorov mainly focuses on developing efficient algorithms for inference in graphical models. Such algorithms have applications in many areas, e.g. computer vision, computer graphics, machine learning, and bioinformatics. Some of the inference techniques developed by Kolmogorov are widely used in the computer vision community, e.g. a maximum flow algorithm and the sequential tree-reweighted message passing algorithm (TRW-S). His other research interests include combinatorial optimization problems such as the min cost perfect matching problem, and some theoretical aspects of discrete optimization.

Fyodor KONDRASHOV Group

Evolutionary Genomics

How did living organisms become the way we know them today? This is the fundamental question that our laboratory is preoccupied with. We are less concerned with understanding the organisms themselves, our main focus is on how they evolved, that is how they changed over time. To address these fundamental issues we employ a diversity of modern tools. We apply mathematical modeling, we use available bioinformatic data and we perform our own experiments with a diversity of different model and non-model organisms. So far, our main focus has been the elucidation of the impact of genetic interactions on molecular evolution. We have been studying how often and in what manner one genetic change affects the impact of another, mostly within the context of one amino acid change affecting other amino acid changes in the

same protein. We believe that genetic interactions may be more common than previously accepted, and such interactions may play an important part in determining the rate of change of amino acid sequences. Members of the lab are free to choose their own direction of research, accepting the responsibility for the direction of research alongside that freedom. Inquiries from potential students and postdocs are welcome.

Matthew KWAN Group

Combinatorics and Probability

Combinatorics is the area of mathematics concerned with finite structures and their properties. This subject is enormously diverse and has connections to many different areas of science: for example, objects of study include networks, sets of integers, error-correcting codes, voting systems, and arrangements of points in space.

Kwan's group studies a wide range of combinatorial questions, with a particular focus on the interplay between combinatorics and probability. On the one hand, surprisingly often it is possible to use techniques or intuition from probability theory to resolve seemingly non-probabilistic problems in combinatorics (this is the so-called probabilistic method, pioneered by Paul Erdős). On the other hand, combinatorial techniques are of fundamental importance in probability theory, and there are many fascinating questions to ask about random combinatorial structures and processes.

Christoph LAMPERT Group

Computer Vision and Machine Learning

Christoph Lampert studies and develops statistical machine learning algorithms for computer vision applications, in particular for the task of natural image understanding. Machine learning enables automatic systems to analyze large amounts of high dimensional data with significant between-feature correlations. This makes it particularly suitable for computer vision problems, such as the analysis of digital images with respect to their contents. In the long run, we are interest in building automatic systems that understand images on the same semantic level as human do, enabling them to answer questions like: What objects are visible in an image? Where are they located? How do they interact?

Mikhail LEMESHKO Group

Theoretical Atomic, Molecular, and Optical Physics

Most of the polyatomic systems studied in physics, chemistry, and biology are quite complex. One of the approaches to understanding their properties is "top-down", i.e. by isolating individual parts of the system and studying its behavior at ever smaller scales. However, strong correlations between the constituent parts, their couplings to the environment, and a general lack of control over the "realistic" systems, makes such a separation challenging.

Recently, we witnessed a tremendous progress in the experimental study of controllable quantum systems, such as cold atoms, molecules, and ions; photons coupled to cavities; defects in solids; superconducting circuits; mechanical oscillators; as well as numerous hybrid systems. In several instances, scientists have reached an ultimate degree of controllability, allowing to prepare particles in a desired quantum state, control their evolution by engineering the microscopic Hamiltonian, and measure the resulting collective states at a single-particle level. In addition, it has become possible to "open" the system in a tunable way, by coupling it to a controlled environment.

This provides a complete toolbox for pursuing the "bottom-up" approach, i.e. studying how the many-body phenomena emerge with an increasing number of particles. At the moment, such bottom-up studies of quantum phenomena coalesce into a new research area, whose rapid development is fostered by an intense collaboration of theorists and experimentalists. The research of Mikhail Lemeshko aims at advancing this research area by theoretically studying strongly-interacting and far-from-equilibrium systems based on ultracold atoms, molecules, and ions, along the lines outlined below.

Martin LOOSE Group

Self-organization of the Cell

Despite their small size, bacteria show a high degree of internal organization. While many of the individual players that determine intracellular order are known, how they work together to organize the cell is not understood.

Our research goal is to understand the mechanisms of intracellular self-organization by rebuilding cellular functions from purified components. We combine biochemical reconstitution experiments with advanced fluorescence microscopy (down to the single molecule level) and quantitative analysis to answer the following questions: What are the biochemical networks that determine intracellular organization? How do proteins of the bacterial cytoskeleton organize into dynamic, large-scale structures? And how did biochemical networks change during evolution?

Our aim is to find general principles underlying protein self-organization, currently we are focusing on protein systems from prokaryotic cells.

Jan MAAS Group

Stochastic Analysis

Jan Maas is a mathematician working in probability theory and mathematical analysis. His research focuses on stochastic processes, which describe a wide variety of real-world systems subject to randomness or uncertainty.

A major source of inspiration comes from optimal transport, a classical subject in engineering and economics concerning the optimal allocation of resources. In recent years optimal transport has been used to establish deep and fascinating connections between seemingly unrelated problems in mathematics, involving curvature of metric measure spaces, gradient flow structures for nonlinear partial differential equations (PDEs), and many other applications. Maas' current research aims to extend techniques from optimal transport into new directions, and to apply these ideas to problems involving discrete stochastic systems, chemical reaction networks, and quantum mechanics.

Another main focus is on stochastic PDEs, which are commonly used to model high-dimensional random systems in science and engineering. The rigorous study of these equations often poses great difficulties, since solutions to interesting equations are frequently so irregular that existing mathematical methods cannot be applied. In many situations it is even already very challenging to find an appropriate notion of solution. One of the aims is to develop robust mathematical techniques for the study of such equations. These techniques lead to new insights in the underlying models, and also allow one to obtain convergence results for discrete approximating systems.

Kimberly MODIC Group

Thermodynamics of Quantum Materials at the Microscale

Modern quantum materials, such as unconventional superconductors, quantum spin liquids, and topological semimetals, host a wide variety of emergent states of matter. A grand experimental challenge is to determine the broken symmetries and topological structure of these states. The Modic group combines custom-built thermodynamic probes with state-of-the-art sample preparation to answer these questions.

The group uses advanced focused-ion beam (FIB) micro-structuring to design unique experiments and broaden the search space for discovery. For example, topological materials are expected to produce the next generation of electronics, but their surface-state properties are usually inaccessible to bulk measurements, such as resistivity or magnetization. Using the FIB, they can increase the surface-to-volume ratio of the sample and detect surface states directly. Modic and her team primarily develop two powerful thermodynamic and symmetry-sensitive techniques for use at the microscale: resonant torsion magnetometry and pulsed-echo ultrasound. At ISTA, they also have the in-house capability to perform electrical transport, heat capacity and magnetization at low temperatures (300 mK) and at moderate magnetic fields (14 tesla). Magnetic fields are a versatile tuning parameter that can be used to drive materials into new states of matter, to map Fermi surface geometries, and to measure the strength of magnetic interactions. The group has expertise in designing experiments that work in pulsed magnetic fields up to 100 tesla, and the scientists regularly travel to high-field facilities around the world.

Marco MONDELLI Group

Data Science, Machine Learning, and Information Theory

We are at the center of a revolution in information technology, with data being the most valuable commodity. Exploiting this exploding number of data sets requires to address complex inference problems, and the Mondelli group works to develop mathematically principled solutions.

These inference problems span different fields and arise in a variety of applications coming from engineering and natural sciences. In particular, the Mondelli group focuses on wireless communications and machine learning. In wireless communications, given a transmission channel, the goal is to send information encoded as a message while optimizing for certain metrics, such as complexity, reliability, latency, throughput, or bandwidth. In machine learning, given a model for the observations, the goal is to understand how many samples convey sufficient information to perform a certain task and what are the optimal ways to utilize such samples. Both the vision and the toolkit adopted by the Mondelli group are inspired by information theory, which leads to the investigation of the following fundamental questions: What is the minimal amount of information necessary to solve an assigned inference problem? Given this minimal amount of information, is it possible to design a low-complexity algorithm? What are the fundamental trade-offs between the parameters at play (e.g., dimensionality of the problem, size of the data sample, complexity)?

Caroline MULLER Group

ATMOSPHERE AND OCEAN DYNAMICS

The research activities of the Muller group lie in the fields of geophysical fluid dynamics and climate science. The team is particularly interested in processes, which are too small in space and time to be explicitly resolved in coarse-resolution Global Climate Models (GCMs) used for climate prediction. Important examples are internal waves in the ocean, and clouds in the atmosphere. These small-scale processes need to be parametrized, that is, modeled with simple equations, in GCMs in order to improve current model projections of climate change. The group's overall goal is to improve our fundamental understanding of these small-scale processes of our climate, using theoretical and numerical tools, as well as in-situ and satellite measurements.

Key questions addressed are:

– What is the response of the hydrological cycle to global warming? Numerous studies, using both regional high-resolution models and global coarse-resolution models, predict an increase of the intensity of precipitation extremes with warming. Understanding this amplification of precipitation extremes with climate change is a crucial question, with important socio-economic consequences.

– What are the physical processes responsible for the organization of tropical clouds? There are different types of organized convection, that is, the overturning of air within which clouds are embedded. Arguably, the most spectacular example is the tropical cyclone, with its eye devoid of deep convection, surrounded by a cloudy eyewall where extreme winds are found. In fact, organized convection is ubiquitous in the tropics. But it is still poorly understood, despite strong societal and climatic impacts.

– What is the contribution of internal waves to ocean mixing, and what impact do they have on the ocean large-scale circulation? Internal waves are ubiquitous in the ocean, and contribute significantly to the ocean global energetics. One of the goals of the Muller group is to clarify the physical mechanisms leading to the instability, overturning and breaking of those waves, as well as to quantify the mixing induced by wave breaking events.

Gaia NOVARINO Group

Genetic and Molecular Basis of Epilepsy and Cognitive Disorders

Gaia Novarino's research aims to identify and study genes underlying inherited forms of epilepsy associated with intellectual disability and/or autism. Epilepsy disorders affect millions of people, many of which are children, often refractory to treatments. Epilepsy often presents with intellectual disability and/or autism, suggesting the existence of common molecular mechanisms underlying these syndromes. The causes of epilepsy remain unknown for the majority of cases. Of these, a significant number have a genetic basis and many causative genes remain to be identified. With DNA sequencing being more accessible, the genomes of many patients can be analyzed and more disease-causing genes will be recognized.

Jeremie PALACCI Group

Materiali Molli

Nature evolved to assemble complex architectures from simple building blocks consuming energy: bacteria form colonies, cells reshape, and muscles contract. The general physical principles that lead to those remarkable and robust phenomena remain, however, to be unveiled.

The Palacci group, aka Materiali Molli Lab, aims at unlocking the organization mechanisms such systems that consume energy. The group's research is experimental and curiosity-driven, primarily focused on systems at the colloidal scale – a microscopic scale just one hundredth of the thickness of a human hair. The researchers investigate how to control materials by powering them from within and understand how to achieve order from noise. They are also exploring the design of modular microbots, carrying the physical and computational power to perform programmed dynamics without external control or feedback. Ultimately, the Materiali Molli Lab aims to emulate the fidelity and tunability of materials and organisms observed in nature using human-made or biomimetic materials.

Bartholomäus PIEBER Group

Catalysis & Synthetic Methodology

Nature uses solar light as energy source to convert raw materials such as CO2 and water into complex molecules. From a synthetic chemists' perspective, visible-light can be considered an ideal reagent. In contrast to conventional reagents, light is non-toxic, generates no waste, and can be obtained from renewable sources. The mission of the PieberLab is to unravel the full potential of visible-light photocatalysis as a powerful and sustainable strategy for synthetic organic chemistry by developing new catalysts and methods. We aim to provide solutions for challenging chemical problems and to realize sustainable, robust photocatalytic transformations. The research in our group is driven by curiosity and the understanding of photophysical properties of photocatalysts as well as reaction mechanisms. A key aspect of our research philosophy is to learn from other areas such as materials sciences. We are particularly interested in heterogeneous photocatalysis using organic and inorganic semiconductors. These materials are promising sustainable alternatives to common homogeneous photocatalysts given their high stability,

straightforward preparation, and ease of catalyst recycling. Another focus is the development of photocatalytic methods in which the choice of wavelength can be used as a parameter to control the outcome of the reaction.

Krzysztof PIETRZAK Group

Cryptography

Krzysztof Pietrzak is interested in theoretical and practical aspects of cryptography, the science of information security. A focus lies on constructing secure cryptographic schemes for light-weight devices like smart-cards or RFID tags. Such devices also become more and more popular for security relevant applications like electronic passports, wireless car key, etc. A major problem is that light-weight devices are susceptible to so called side-channel attacks where adversary measures information inevitably leaked during computation from the device. This information, which can e.g. be the power consumption or radiation, often allows breaking security completely.

Until recently, research on side-channel countermeasures was done mostly by security engineers as it was believed to be a practical problem where (theoretical) cryptography cannot be of much use. However, this view has changed, and in the last years several "leakage-resilient" cryptosystems were proposed which are provably secure against all side-channel attacks making only mild (and basically minimal) assumptions on the hardware on which they are implemented.

Another issue is that some devices, like RFID tags, are so computationally restricted that standard cryptosystems cannot simply be implemented on them. We are working on schemes which are simple enough for this setting, while still enjoying strong provable security guarantees.

Hryhoriy POLSHYN Group

Emergent electronic phenomena in 2D materials

Graphene and other two-dimensional materials open exciting opportunities to realize electronic systems that show fascinating collective behaviors. Investigating electronic phenomena in these novel 2D materials could set the foundation for the next generation of electronic devices and quantum computation. The goal of the Polshyn group is to uncover new emergent electronic states in 2D materials and explore their unique properties.

The Polshyn group creates clean and exceptionally tunable 2D electronic systems by applying advanced nanofabrication techniques to graphene and other van der Waals materials. Combining atomically-thin layers of these materials in different ways and purposefully introducing misalignments between the layers allows one to efficiently tune both the strengths and the character of the electronic interactions. In the limit of strong interactions, electrons realize a number of correlated phases that include superconductivity, spin and valley ferromagnetism, and robust topological states. Remarkably, in some van der Waals systems, the transitions between all these quantum phases can be observed by in situ tuning a single device. Hence, these systems provide a unique platform for investigating novel electronic phases and their potential applications. The Polshyn group uses ultra-low-temperature electronic transport measurements and other experimental techniques to probe the nature of emergent correlated states and search for the states with exotic topological properties.

Matthew ROBINSON Group

Medical Genomics – Modelling Large-scale Medical Record D

Common complex diseases such as type-2 diabetes, obesity, stroke, and cardiovascular disease are among the leading causes of mortality worldwide. Our limited understanding of how genetic variation and the environment affect health and disease makes it impossible to respond optimally, treat and ultimately prevent symptoms.

The Robinson Group develops statistical models and the computational tools required to implement these models for very large-scale human medical record data. The overall goal is to improve our understanding of how genetics and our lifestyles shape our risk of disease.

We still have very little understanding of why people develop first symptoms at different age, or why the severity of symptoms varies. The Robinson Group works to better characterize the underlying pathways and relationships among diseases. The hope is to improve our ability to predict not only an individual's overall risk of disease, but also when people are likely to become sick and how they might respond to different treatments.

Answers to long-standing questions at the heart of understanding the changes that occur at important stages of our lives are also investigated: How does the maternal and child genome interact to shape pregnancy and early life? What constitutes a healthy pregnancy? How does our genome shape our growth? How do genetics influence our ability to lead long and healthy lives?

Andela SARIC Group

Computational Soft and Living Matter

How do lifeless molecules create living organisms? How can such processes fail, resulting in diseases? At the intersection of soft matter physics, molecular cell biology, and physical chemistry, the Saric group studies physical mechanisms behind non-equilibrium self-organization of biomolecules in healthy and diseased states.

Currently, the group is focused on investigating the physical principles of cellular reshaping and cell division across evolution, and on the formation of pathological protein aggregates in the context of neurodegenerative diseases. Saric group develops computational models rooted in soft matter and statistical physics, which are powerful in traversing scales and investigating collective phenomena. The group closely collaborates with experimental colleagues on a range of systems, from synthetic set-ups to living cells.

Leonid SAZANOV Group

Structural biology of membrane protein complexes

Membrane proteins are responsible for many fundamental cellular processes including transport of ions and metabolites, energy conversion and signal transduction. They are also implicated in a vast range of human diseases. About one third of the human genome encodes for membrane proteins and they are the target of about two thirds of modern pharmaceuticals. However, membrane proteins represent only about 2% of known protein structures in the Protein Data Bank (PDB). This is because membrane proteins are notoriously difficult to express, purify and crystallise for X-ray crystallographic structure determination. In order to progress with our understanding of membrane protein function and

to aid the design of relevant drugs, there is an urgent need for the structural characterization of many more membrane protein families.

We have a long-standing interest in the structural biology of membrane proteins, especially those from the domain of bioenergetics. The main emphasis so far has been on complex I of the respiratory chain, a huge (up to 1 MDa) enzyme central to cellular energy production, one of the basic foundations of life. Mutations in complex I subunits lead to many human neurodegenerative diseases, and the enzyme is also involved in many common pathologies, including cancer. We have determined all known atomic structures of complex I, starting from subcomplexes and recently the entire enzyme, the largest asymmetric membrane protein solved to date, with 64 transmembrane helices. The structures allowed for the interpretation of over 50 years of functional data. The vast complexity of the enzyme (with up to 9 Fe-S clusters) that belies its efficiency is one of the most intriguing wonders of nature, as the redox energy is used across distances of up to ~300 Å. The structure of the entire complex suggested a uniquely elaborate mechanism of proton translocation, involving long-range conformational changes. We are verifying the mechanism further via structural studies using both X-ray crystallography and single particle cryo-electron microscopy, exploiting the latest advances in EM hardware and software. In order to build a complete mechanistic understanding of this molecular machine, structural work is supplemented by site-directed mutagenesis and various functional assays using a range of biophysical techniques. We are also expanding our studies to other related complexes, such as Mrp antiporters and membrane-bound hydrogenases, as well as other membrane proteins of interest.

Combined, our studies will move the understanding of redox- and conformationally coupled proton pumps forward and help us derive general and specific features of molecular design in these intricate biological machines, often resembling, but far surpassing in efficiency, human engineering creations. Medical implications are multifaceted, especially for complex I-related diseases, which constitute the most common human genetic disorders.

Paul SCHANDA Group

Biomolecular Mechanisms from Integrated NMR Spectroscopy

Life is in motion. While one immediately realizes the inherently dynamic aspect of living organisms on the macroscopic level, simply by observing it by eye or under a microscope, it is clear that ultimately it is the jiggling and wiggling of the atoms within molecules, and their interactions with each other, that allow life to unfold.

The Schanda group is particularly interested in understanding how biomolecules – primarily proteins – perform their tasks, and how their structural dynamics governs their functions. Their work has several aspects. On the one hand, the group studies a number of puzzling biological questions. For example, how do proteins transport other proteins across the cell, across biological membranes or into membranes? By studying how those proteins – chaperones, receptors, translocases – are structured, how they move and how they interact, they decipher how cells are able to transport large and highly aggregation-prone polypeptides all across the cell and ultimately refold them into their native environment. For example, this work unravels how membrane proteins are getting imported into mitochondria, or how megadalton-large chaperones help other proteins to fold.

On the other hand, the group is interested in somewhat more fundamental physio-chemical aspects of protein dynamics. How do the motions around the active site of an enzyme control its function? And how exactly do the side chains and main chain of proteins move – in solution, in crystals, and in large assemblies? How do protein domains move relative to each other, and does the packing in biological assemblies or crystals impact this motion?

To answer these questions, the Schanda group uses nuclear magnetic resonance (NMR) spectroscopy, which they combine with a host of other biophysical, biochemical, in-silico and in-vivo methods. The

integration of these methods, and the further development of NMR methodology is another key interest of the group, as they develop, for example, methodologies that allow solving three-dimensional structures of large proteins or protein complexes from novel NMR experiments, coupled to cryo-EM. Other new NMR methods allow to decipher in great detail how particular parts of proteins move, which then allows linking those motions to function.

The group, thus, spans activities from nuclear spin dynamics and biophysics to challenging biological problems.

Florian SCHUR Group

Structural Biology of Cell Migration and Viral Infection

Everything in life is dynamic. Movement plays a fundamental role, from the level of whole organisms down to individual cells. Wound healing, embryonic development, fertilization and immune responses all rely on the cells' ability to move. Deregulation of these processes often leads to pathologies including tumor cell metastasis, developmental disorders and pathogen infection. The key player in the ability of cells to move is the so-called actin cytoskeleton. In the evolutionary arms race between host and pathogen, different bacteria and viruses have developed ways to hijack the cell's own moving machinery to their own advantage, e.g. for infection, replication and spread.

The aim of our group is to obtain a detailed understanding of the structures in the dynamic environment of the actin cytoskeleton and its associated regulators in migrating cells, and in cases where pathogens (focusing on Vaccinia virus and Baculovirus) exploit actin-related host mechanisms. We are trying to understand how cells integrate external signals to form a complex network that allows them guided movement. This includes how both the cell and pathogens use important actin regulators such as the Arp2/3 complex and its upstream activators.

In order to structurally elucidate the molecular details underlying these processes we employ and will actively develop state-of-the-art correlative light and electron microscopy (CLEM), cryo-electron microscopy (cryo-EM) and cryo-electron tomography (cryo-ET) methods. These techniques allow us to visualize protein structures directly within their native environments (e.g. within melanoma cells), thus providing an understanding of the structure within its functional context. We additionally use novel images processing tools which have recently allowed us to obtain high-resolution structures from within pleomorphic virus particles and offer a unique potential towards cellular structural biology (see Schur FKM et al, 2016, Science, 353). We will continue these efforts to reveal the structure of other pleomorphic viruses at near-atomic detail, which will give important insights into the process of viral assembly.

The overarching goal of the group is to develop workflows that allow the structural characterization of transient membrane-proximal events, which so far have remained elusive due to lack of experimental tools, to study them in their native context. This includes how membrane complexes transduce signals from outside of the cell (e.g. chemokine gradients or other stimuli) onto intracellular networks, which is of critical importance for our understanding of cell biology.

Robert SEIRINGER Group

Mathematical Physics

Robert Seiringer and his research group focus on many-body systems in quantum mechanics. In particular, they are interested in problems in quantum statistical mechanics and condensed matter physics. Such systems display a rich variety of complex phenomena, and it is of fundamental importance to understand the basic underlying principles as thoroughly and precisely as possible. The goal of their research is the development of new mathematical tools for a rigorous analysis of such quantum many-body systems. Because of the complexity of the systems many phenomena are so far only understood using either perturbation theory or uncontrolled approximations whose justification remains open. It therefore remains a challenge to derive non-perturbative results and to obtain precise conditions under which the various approximations can or cannot be justified. For this purpose it is often necessary to apply modern mathematical techniques or even to develop new ones. In this way, physical ideas and intuition tend to give rise to new mathematical methods. These new methods lead to different points of view and thus increase our understanding of physical systems.

Maksym SERBYN Group

Theoretical Condensed Matter Physics and Quantum Dynamics

Condensed matter physics deals with phenomena on the energy scales that are much smaller compared to the microscopic ones (for instance, the kinetic energy of electrons in metals corresponds to temperatures of about 10 000°, far higher than room temperature). Systems of many interacting particles at such macroscopic energy scales often behave in a qualitatively different way leading to so-called emergent phenomena. For example, low energy emergent excitations resulting from a “coherent dance” of electrons interacting with the crystal lattice or amongst themselves may not resemble electrons at all. In the celebrated example of carbon monolayer — graphene, electrons while scattering off the crystal lattice, lose their mass and behave like relativistic fermions. In superconductor, electrons pair with each other leading to an emergent quantum-coherent condensate of cooper pairs that can carry an electric current without any resistance.

While microscopically we cannot alter the basic laws of nature, one of the goals of condensed matter physics is to explore and extend the possible range of emergent behaviors. My research is concentrates on uncovering new emergent physics in quantum systems.

One direction of my research pertains to the dynamics of isolated quantum many-body systems. Such dynamics are currently being studied in systems of cold atoms, trapped ions, superconducting qubits, and many others; these are often referred to as “artificial quantum matter”. The presence of strong disorder in such systems may lead to a so-called many-body localized phase, wherein the system fails to reach thermal equilibrium and cannot be described by usual statistical mechanics. The possibility of evading thermal equilibrium, in which the system quickly turns into “featureless hot soup”, is not only interesting from a practical point of view, but can also potentially enable deeper insight into the emergence of statistical mechanics in a variety of quantum systems. The second direction of my research pertains to pfd exploring interesting emergent physics in the context of solid-state systems. I am interested in unconventional superconductors, systems with spin-orbit coupling, Dirac and topological materials. I am particularly attracted to theory that is immediately connected with experiments, either explaining existing data or leading to potentially observable predictions.

Ryuichi SHIGEMOTO Group

Molecular Neuroscience

The transmission of information in the brain is controlled and regulated by various functional molecules, including receptors, channels and transporters located on the plasma membrane of neuronal and glial cells. We investigate the functional roles of these molecules in the synaptic transmission, neuronal circuits, systematic organization of the brain and animal behaviors, by analyzing their localization, movements, and functions using morphological, electrophysiological, and molecular biological techniques. Special attentions are being made to combine these different techniques efficiently and elucidate the integrated brain functions.

Sandra SIEGERT Group

Neuroimmunology in Health and Disease

Our main research focus is to understand how neurons and microglia interact with each other, and how malfunctions within this relationship impacts neuronal circuit formation and function in health and disease.

Microglia are commonly thought to be only involved in an active immune defense. However, recent studies have shown that microglia respond to their neuronal environment and influence synapse formation and maintenance. Moreover, genome-wide studies described several disease-associated genes, which have been related to microglial function. This raises the fascinating question how do microglia know when to alter neuronal circuit elements without inducing circuit malfunction.

To address this, we take advantage of the mammalian retina, which consists of morphologically well-defined cell types that are precisely mapped in their connection and functional properties. In the retina, microglia activation has been described in several inherited retinal degenerative diseases, however their role is unknown. To resolve our questions, we combine techniques from molecular biology, virology, genomics, (epi)genetics, computational, and multi-photon functional imaging. Moreover, we take advantage of reprogramming human induced pluripotent stem cells into three-dimensional retinal structures to study human-disease relevant aspects.

Michael SIXT Group

Morphodynamics of Immune Cells

Michael Sixt's laboratory is interested in morphodynamic processes both at the cellular and at the tissue level. We mainly focus on the immune system and try to understand the molecular and mechanical principles underlying leukocyte dynamics during processes such as migration and intercellular communication.

Here we work at the interface of cell biology, immunology and biophysics and currently investigate how the cytoskeleton generates force to deform the cell body, how this force is transduced to the extracellular environment and how the cells are polarized and guided within tissues. To obtain a holistic view of the process we are also studying tissue architecture as well as the distribution and presentation of guidance cues (chemokines) within these tissues.

We developed a number of in vitro tools that allow us to observe cytoskeletal dynamics in real time using different life cell imaging approaches. These are all based on advanced light microscopy like total internal reflection, fast confocal and multiphoton technology. We combine these approaches with genetic and pharmacological interference as well as substrate manipulations like surface micropatterning and microfluidics. A general aim of the lab is to test in vitro findings also in the context of living tissues. To this end we also developed ex vivo (tissue explant) and in vivo imaging setups that allow us to monitor leukocytes together with their physiological environment. Finally we are also interested to test the implications of our findings for physiological immune responses.

Lora SWEENEY Group

Evolution, Development and Function of Motor Circuits

Movement is fundamental to nearly every animal behavior: to escape predators, to eat and breathe, animals must move. The Sweeney Group aims to define the molecular, cellular and neural circuit components that underlie differences in motor behavior, and to explore how such differences arise during an organism’s development.

The group uses the Xenopus frog to address these fundamental questions. The frog undergoes metamorphosis, transitioning from a swimming tadpole to a walking frog during development. The Sweeney Group exploits this transition and categorizes, compares and manipulates frog neurons at each stage. This allows the scientists to map variations in cellular properties and neural circuit structure onto differences in motor behavior.

Knowledge about such cell-circuit-behavior relationships in the frog will provide a basis for comparing motor circuits between tetrapods, understanding how motor circuits evolved from swimming to walking during evolution, and pinpointing how motor circuits break down in movement disorders.

Gasper TKACIK Group

Theoretical Biophysics and Neuroscience

Gašper Tkačik is a theoretical physicist who studies information processing in living systems. He uses tools from statistical physics of disordered systems and from information theory to investigate biological systems such as networks of neurons or genes.

The unifying hypothesis driving his research has been that information processing networks have evolved or adapted to maximize the information transmitted from their inputs to the outputs, given the biophysical noise and resource constraints. He works closely with experimentalists and analyzes data sets that record simultaneously the behavior of many network components.

Results of his work gave insight into the principles of genetic regulation in early morphogenesis of Drosophila and of information coding in retinal ganglion cells. In the future, he plans to expand his activities to study collective behavior and cellular self-organization.

Beatriz VICOSO Group

Sex-chromosome Biology and Evolution

The extent to which males and females differ varies widely in nature, and understanding what drives sexual dimorphism has been a long-standing challenge. Despite these morphological differences, only two chromosomes differ between the sexes: the X and the Y, also known as the sex chromosomes. The Y, which is only present in males, is often small and "degenerated" compared to other chromosomes. The biology of the X is also unusual: for instance, the inactivation of one X in mammalian females is required to compensate for the single copy in males. Sex chromosomes are thought to be key to the establishment of separate male and female phenotypes.

Beatriz Vicoso is interested in understanding several aspects of the biology of sex chromosomes, and the evolutionary processes that shape their peculiar features. By combining the use of next-generation sequencing technologies with studies in several model and non-model organisms, a variety of standing questions can be addressed, such as: why do some Y chromosomes degenerate while other remain homomorphic, and how does this relate to the extent of sexual dimorphism of the species? What forces drive some species to acquire global dosage compensation of the X, while others only compensate specific genes? What are the frequency and molecular dynamics of sex-chromosome turnover? This approach has already allowed new patterns to be uncovered in trematodes, birds, snakes and insects, and expanding it will greatly widen our understanding of how and why sex chromosomes evolve.

Tim VOGELS Group

Computational Neuroscience and Neurotheory

The Vogels Group is looking to build models of neurons and neuronal networks that distill and re-articulate the current knowledge of how nervous systems compute at a mechanistic level. In particular, the group is interested in the neuronal interplay of excitatory and inhibitory activity in cortex and how these dynamics can form reliable sensory perceptions, stable memories, and motor outputs.

More specifically, the work in our lab is divided into three main areas:

1) Plasticity

The group aims to find the rules governing how the brain updates its synaptic connections in order to learn and adapt to a changing world. In collaboration with experimentalists working on various systems from humans to the fruit fly, we build mechanistic models of synaptic plasticity to help elucidate (i) how plasticity differs across different cell types in cortical networks, (ii) how learning is guided by neuromodulatory signals, (iii) how learning changes across development, and (iv) how changes in synaptic connections affect the resulting neuronal network dynamics used for computation.

2) Network dynamics and computation

The Vogels group seeks to understand how neuronal networks process and transform sensory inputs, store and manipulate memories, and send motor outputs. By building and analysing models of spiking and firing-rate neuronal networks, the group studies the role of inhibition and excitatory-inhibitory balance in processing and gating the flow of information, and how contextual and reinforcement signals modify network properties to produce the flexible and complex dynamics seen in current large-scale neuronal recordings.

3) Ion channels and single-neuron biophysics

The Vogels Group builds detailed biophysical models of single neurons in order to understand the complex input-output relationships at the level of single neurons and their dendritic branches. In collaboration with researchers at EPFL (Lausanne) and the CNCB (Oxford), they have created an extensive database of ion channel models and their relationships, to facilitate better experimentally-constrained modelling (ICGenealogy). The Group is now working to expand this resource into other areas of neuroinformatics in order to help make sense of the large amounts of data that experimental and computational neuroscience currently produces.

Uli WAGNER Group

Combinatorics, Geometry, and Topology

The research of the group focuses on questions in combinatorial and computational geometry and topology. On the one hand, we study basic questions in geometry and topology from a combinatorial and algorithmic viewpoint. On the other hand, we apply methods from topology to problems in combinatorics and theoretical computer science.

For the purposes of algorithms and applications, we typically consider the geometric shapes (topological spaces) we study to be represented as simplicial complexes, .e., in terms of a combinatorial description how to build the space from basic building blocks (simplices) of various dimensions—points (vertices), line segments (edges), triangles, tetrahedra, etc. For example, a 1-dimensional simplicial complex is just a graph, given by a set of vertices and a description which pairs of vertices are joined by an edge (e.g., the layout of a computer chip or a network); higher-dimensional complexes also encode interactions between three and more vertices.

Scott WAITUKAITIS Group

Soft and Complex Materials

We are an experimental physics lab whose research focuses on complex phenomena that arise via exotic interactions between liquids and solids. Our work is highly interdisciplinary, sitting at the intersection of soft matter physics, materials science, complex fluids, and chemistry. Under this general umbrella, our lab addresses a variety of distinct topics ranging from the nanoscale to the macroscale and involving experimental techniques ranging from atomic force microscopy to high-speed imaging.

An example at the smallest scale is the phenomenon of tribocharging—the exchange of electrical charge between objects during contact. Although well-known to anyone who has been shocked by a doorknob and described scientifically going back as far as ancient Greece, the underlying mechanism for tribocharging remains mysterious. We are particularly interested in same-material tribocharging, which counterintuitively occurs when identical materials are brought into contact. Recent results suggest that this puzzling phenomenon might result from the stochastic deposition of nanoscale islands of water on the material surface. Using advanced AFM capabilities to characterize surfaces and cutting-edge techniques to measure charge exchange, a major goal is to validate or nullify this hypothesis and help resolve this millennia-old mystery.

At larger scales, we are interested in the non-Newtonian dynamics that arise when colloidal-sized solid particles are suspended in liquids. Perhaps the most well-known example is a dense mixture of cornstarch particles in water, which behaves liquid-like when perturbed gently but solid-like when vigorously agitated. Previous work has centered on passive non-Newtonian suspensions such as this, but moving forward our lab will focus on smart colloidal suspensions filled with particles that can be controlled by environmental stimuli. Our long-term goal in this direction is to achieve a level of spatiotemporal control that allows us to design and build metafluids—liquids whose material properties can be changed on command.

Chris WOJTAN Group

Computer Graphics

The realistic simulation of complex processes in the physical world is the focus of research in the Wojtan group. Using numerical techniques, they create computer simulations of physical phenomena such as fluids, deformable bodies or cloth.

Such accurate representations are required not only for computer animation, but also for medical simulations, computational physics and digital modeling.

In their work, the Wojtan group combines mathematical methods from computational physics with geometric techniques from computer graphics. A key contribution of the Wojtan group is the efficient treatment of topological changes with deforming meshes that split and merge, in order to simulate highly detailed surface tension phenomena, such as the formation of water droplets and splashes. This method is used for the realistic animation of flowing and splashing water.

Latest research of the group couples high-resolution embedded surface geometry to low-resolution simulations, to simulate detailed animations of elastic, plastic, and fluid phenomena.

Daniel ZILBERMAN Group

Epigenetics and Chromatin

Most of the information that passes across generations is encoded in the DNA sequence. However, there is increasing appreciation that cells and organisms also receive inherited information through other mediums, known collectively as epigenetic. The Zilberman group studies cytosine DNA methylation, a key epigenetic mechanism in plant and animal cells.

Cytosine methylation can carry epigenetic information because it is precisely copied when the DNA is replicated. Methylation regulates gene expression, and accurate reproduction of DNA methylation patterns during cell division is therefore essential for plant and animal development, efficient agriculture, and human health. The enzymes that maintain DNA methylation must work within chromatin, and particularly to contend with nucleosomes – tight complexes of DNA and histone proteins.

The Zilberman group combines genetic, genomic, biochemical, and evolutionary approaches to understand the maintenance and function of DNA methylation within chromatin using the flowering plant Arabidopsis thaliana as the primary model. They also study a variety of other species to understand the complex evolution of eukaryotic DNA methylation.

ALUMNI

Jonathan BOLLBACK Group

Microbial Experimental Evolution and Statistical Genomics

Jonathan Bollback's group works in three primary areas: experimental evolution, evolutionary genomics, and statistical phylogenetics. Microbes viruses, bacteria, archaea, and protists account for half of all the biomass and the majority of organismal diversity on planet earth. Microbes gave rise to higher organisms and have left their genomic calling cards in the form of organelles, genes, and so called junk DNA. Microbes are the source of the majority of human diseases. For these reasons alone microbes are worthy of scientific study. Yet, they are also important in another way: they are an extraordinarily powerful model system for understanding in very fine detail how evolution works. Our research focuses on microbial evolution, evolutionary interactions between hosts and parasites, and the evolution of bacterial immunity. To accomplish this we use experimental evolution, population genetics, and statistical modeling.

Tobias BOLLENBACH Group

Biophysics and Systems Biology

Cells ranging from those in the tissues of multi-cellular organisms to single-celled microbes respond to signals in the environment by modifying the expression of their genes. While recent technological advances have enabled us to measure and manipulate such gene expression responses genome-wide, little is known about the high-level capabilities and limitations of the genetic circuits that control these responses. Our long term goal is to gain a deeper, more quantitative understanding of the relation between the signals present in the cell's environment and the information processing and other events which they trigger inside cells. In particular, we aim to identify general principles that capture key properties of gene regulatory responses. To this end, we combine quantitative experiments, often based on fluorescence measurements in single cells or entire populations, with theoretical approaches from physics. Whenever possible we measure and interpret numbers, rather than pictures or qualitative effects.

Harald JANOVJAK Group

Molecular and Cellular Biophysics, Optogenetics

A major challenge in biology is to understand how cells sense and process signals from the environment. Complex signaling pathways shape physiological responses by computing the magnitude, duration and location of each stimulus. To understand signaling we therefore require a framework that generates well-controlled temporal and spatial stimulation. Our optogenetic approach is multi-disciplinary and bridges cell biology, biophysics and instrumentation development to answer long-standing questions in cellular signaling.

Our projects are (i) to develop signaling cascades that can be remote-controlled with light and (ii) to address families of fundamental problems in signaling with this unique angle. Signaling will be triggered locally (by pointing light), temporally (by turning light ON and OFF) and at different levels (by controlling light intensity) in living cells and in vivo.

Local activation will test what mechanisms underlie the propagation of signals in cell membranes. Activation in temporal patterns will mimic physiological signaling and probe adaptation, memory and dynamics in prototypical cellular pathways. Collectively, we will decode how signals are orchestrated into physiological responses.

Daria SIEKHAUS Group

Invasive Migration

The formation of the body, the functioning of the immune system and the spread of cancer all depend on the ability of cells to migrate. We strive to understand this crucial process and in particular the question of how cells move within the complicated environment of an organism and penetrate through barriers that lie in their way. We address these questions in the fruit fly Drosophila melanogaster by studying the developmental migration of immune cells which all move from the location of their birth to disparate regions of the embryo through precise paths. One of these trajectories requires the cells to move through epithelial junctions, in a process that we have shown utilizes molecular components also required in mammalian immune cells and metastatic cancer cells to penetrate the endothelial vasculature. We have identified many genes required for this invasive movement and have shown that several of them facilitate dynamic cellular interactions by regulating the intracellular localization of an activator of adhesion. Using a powerful combination of imaging, genetics, cell biology and biophysics we seek to understand the functions of these genes, the pathways they act in, and the strategies and principles that underlie invasive migration. We hope to translate what we learn from our Drosophila studies to autoimmunity and metastasis.

Caroline UHLER Group

Algebraic Statistics and Computional Biology

Caroline Uhler's main research is in mathematical statistics and its applications to computational biology. She is particularly interested in the area of algebraic statistics, which exploits the use of algebraic techniques to develop new paradigms and algorithms for data analysis. In her research, she uses methods from algebraic geometry, computational algebra and combinatorics to study statistical theory problems, such as parameter estimation and identification in graphical models. Besides her theoretical interests, she also works on developing mathematical and statistical tools for applications to computational biology.

1. C. Scientific Support

ISTA has several **Scientific Service Units**, the purpose of which is to provide the scientists with professional services and state-of-the-art equipment that allow them to perform research at an internationally competitive level. The philosophy of ISTA is to maximize the sharing of equipment and services among multiple research groups in order to avoid a duplication of efforts and expenses. The Scientific Service Units of ISTA are central core facilities that can be used by all scientists of the Institute.

Roland Gansch (Head of Scientific Service Units)

Extension: 1108, E-Mail: roland.gansch@ist.ac.at

Bioimaging Facility

The **Bioimaging Facility** team supports cell biologists by providing a number of state-of-the-art microscopes and flow cytometry equipment. Currently, eight confocal microscopes, two climatised fluorescent microscopes, two TIRF microscopes, a spinning disc/laser microdissection microscope, a spinning disc/multiangle TIRF/FRAP microscope, two multiphoton microscopes with portable multichannel FLIM detector, a probing atomic-force microscope, a SPIM, a neuron tracking microscope (Neurolucida) and a bioluminescence imaging box are available. Facility also supports Fluorescence-assisted cells sorting services (FACS), image analysis and optical development projects.

Gabriel Krens (Manager of Bioimaging Facility)

Extension: 1700, E-Mail: gabriel.krens@ist.ac.at

Scientific Head of Bioimaging Facility: Carl-Philipp Heisenberg

Electron Microscopy Facility

Electron microscopy facility team at ISTA provides researchers with well-maintained cutting-edge sample preparation and imaging instrumentation, modern infrastructure and skilled personnel. To assist life scientists in obtaining their research objectives and to ensure efficient utilization of instrumental capabilities service, technical support, training and consultation together with development of unique sample preparation techniques are provided.

Currently, three TEMs (Tecnai 10, Tecnai 12 and Jeol 2800) are available. Jeol 2800 is equipped with bright-field and dark-field STEM detectors, secondary electrons detector and large solid angle silicon

drift detector EDS Centurio with 100mm2 active areas for ultrafast elemental mapping of S/TEM samples.

Furthermore there is also FE-SEM Merlin VP Compact + ATLAS Array Tomographym Cryo Transfer Tomography System for Tecnai 12 and also equipment for sample preparation is available.

Ludek Lovicar (Manager of Electron Microscopy Facility)

Extension: 1066, E-Mail: ludek.lovicar@ist.ac.at

Scientific Head of Electron Microscopy Facility: Leonid Sazanov

Library

The **library** of ISTA serves the researchers of all disciplines and provides state-of-the-art library resources and services. Designed as a predominantly electronic library, it provides electronic access to scholarly journals, conference proceedings, databases, and books. Digital content, which is the key driver in modern research librarianship, is thus available 24/7 for researchers' use. Wherever the library cannot give direct access, the needed information resource can be ordered via document delivery or inter-library loan.

IST BookList (ist.ac.at/booklist) is the library catalog containing an increasing number of books and eBooks available at ISTA. Here you will find all book items offered by the library for general use, but it also includes numerous books held by the research groups of ISTA.

More information on the e-journals and databases provided by ISTA as well as published technical reports and more information about the offered services can be found on the library website (https://ist.ac.at/library/library-services/).

Patrick Danowski (Manager of Library):
Extension: 1013, E-Mail: patrick.danowski@ist.ac.at
Scientific Head of Library: Laszló Erdös

Life Sciences Facility

The **Life Sciences** team at ISTA supports experimental biologists in their research work.

The main objectives of the facility are:

- Provide a laboratory infrastructure for wet lab biological sciences (such as tissue culture facilities, cold storage devices and histology equipment) that enables the scientists to apply a brought spectrum of standard and advanced technologies in their work.
- Provide best possible laboratory and surrounding conditions to allow the scientists to focus on their research work as much as possible.
- Provide the necessary infrastructure that enables the scientists to ensure compliance of their work with the current Austrian legislation.
- Provide the necessary means to enable safe working conditions within the laboratories.
- Supply experimental resources (media, animals, plants, etc) at a consistently high level to allow the scientists to focus on their scientific questions as much as possible.

Matthias Nowak (Manager of Life Science Facility)

Extension: 1027, E-Mail: matthias.nowak@ist.ac.at

Scientific Head of Life Science Facility: Jiri Friml

Miba Machine Shop

The **Miba Machine Shop** produces and provides special non-conventional mechanical and electronic equipment for all experimental groups and especially for the neuroscience researchers. Complete technical solutions that may consist of several products are offered in case of non-standard experiments.

Miba Machine Shop is equipped with CNC milling machines, CNC lathe machine, grinding and buffing machine. One of the high-end machines are 3D printers, produced by 3DSystems. 3D printing technology is rather new, due to its high precision it is applicable for small details with complex construction and used for example for micro drive production.

Todor Asenov (Manager of Machine Shop)

Extension: 1029, E-Mail: todor.asenov@ist.ac.at

Scientific Head of Machine Shop: Björn Hof

Nanofabrication Facility

Our new established **Nanofabrication Facility** has opened its cleanroom in Q1 2017. It provides a cleanroom space of 420 sqm of new ISO 7 (class 10000), ISO 6 (class 1000) and with specific areas ISO 5 (class 100) - equipped with all the state of the art nanofabrication facilities.

In general, the Nanofabrication Facility provides tools to researchers and students to support them in their research. Furthermore, it develops, optimizes and maintains micro- and nanofabrication processes.

Salvatore Bagiante (Manager of Nanofabrication Facility)

Extension: 1174, E-Mail: salvatore.bagiante@ist.ac.at

Scientific Head of Nanofabrication Facility: Georgios Katsaros

Preclinical Facilities

The **Preclinical Facility (PCF)** supports all life scientists using laboratory rodents for their research.

All animals in the Facility are strictly kept according to the valid National and European law regulation and fulfill international recommendations and demands in terms of animal health, genetic monitoring and animal welfare.

Michael Schunn (Manager of Preclinical Facility)

Extension: 1035, E-Mail: michael.schunn@ist.ac.at

Scientific Head of Preclinical Facility: Simon Hippenmeyer

Scientific Computing

This Scientific Service Unit supports our scientists for any scientific computing needs they may have.

Our main service is the High Performance Computing (HPC) Cluster we operate, we also provide procurement and licensing services for scientific software.

We are also in contact with the VSC, the cluster for academic and research institutes in Austria, for which we can provide access to resources and support.

For general IT questions (purchase of standard equipment, end user support, file systems, accounts and access, etc.) please visit the ISTA IT Homepage at: it.ist.ac.at.

Stephan Stadlbauer (Head of IT)

Extension: 1158, E-Mail: stephan.stadlbauer@ist.ac.at

Scientific Head of Scientific Computing: Christopher Wojtan

1. D. Administrative Staff at ISTA

Office of the President

The **Office of the President** organizes and administrates all non-scientific affairs for the President and Vice President and acts as an interface to the scientific and administrative staff, board and committee members, cooperation partners and other external contact persons, including ISTA's network of supporters.

It includes Stakeholder Relations and is further responsible for the scheduling, organization, preparation and follow-up of meetings, especially board, committee, and endowment meetings as well as meetings of the management, and prepares minutes, presentations, and reports, in addition to ensuring efficient and smooth office operations.

Magdalena Lueger-Kaltenecker (Head of the Office of the President)

Extension: 1033, E-Mail: magdalena.lueger-kaltenecker@ist.ac.at

Laurenz Niel (Professorial Appointments and Institutional Research)

Extension: 1002, E-Mail: laurenz.niel@ist.ac.at

Executive Affairs

The unit **Executive Affairs (EA)** harbors various functions close to the management:

Legal Affairs

Legal Affairs provides legal advice and assistance to the management, faculty, and other staff on a wide range of matters, including labor and employment, intellectual property, development of ISTA's policies and procedures, founding of affiliates, collaboration with external entities, contract management, compliance and data protection, as well as ISTA's contractual and statutory obligations. Legal Affairs also coordinates the services of lawyers, tax advisors, and other external advisors.

OPP

The function Organization, Processes and Project Management (OPP) is in charge of implementing and further developing the Internal Control System (ICS), policy management, as well as designing and optimizing important Institute-wide administrative processes. OPP further assists the administration in planning and leading various projects, along with providing project-specific training.

Internal Audit

Internal Audit is an independent, objective assurance and consulting activity designed to add value and improve ISTA's operations. It helps to accomplish its objectives and mission by bringing a systematic and

disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

Julia Lintner (Head of Executive Affairs)

Extension: 1000, E-Mail: julia.lintner@ist.ac.at

Academic Affairs

The division **Academic Affairs (AA)** deals with the organization of academic life at ISTA and coordinates the quality control of research at the Institute. It administers the entire recruitment process for Professors and Assistant Professors from the advertisements of open positions, through the evaluation process, the interviews of potential candidates to the negotiations with a candidate. Furthermore, AA is involved in the employment of staff scientists, postdocs and scientific interns. AA also supports visiting scientists in organizing their stay at ISTA. Moreover, various scientific events like conferences, workshops and meetings are organized or supported by AA, if needed. It also coordinates meetings of the Scientific Board and the Professorial Committee as well as institute, area and tenure evaluations.

Barbara Abraham (Head of Academic Affairs and Deputy Managing Director)

Extension: 1020, E-Mail: barbara.abraham@ist.ac.at

Responsible conduct of research (research integrity and research ethics)

ISTA is committed to the highest international academic standards of responsible conduct of research. These include research ethics and research integrity. Research ethics addresses questions related to research content, topics, and scientific approaches. Research integrity focuses on aspects related to ensuring the quality and reliability of scientific and scholarly knowledge (scientific record keeping, authorships, conflict of interest, avoiding scientific misconduct, etc.).

Verena Seiboth (Ethics Officer)

Extension: 1183, E-Mail: verena.seiboth@ist.ac.at

For more information, please see:

https://wiki.ist.ac.at/index.php/Responsible_Conduct_of_Research_(Research_Integrity_%26_Research_Ethics)

Graduate School Office

The organization of the Graduate School with all its courses, the admission process of students, student affairs and the development of rules and procedures of the PhD program are further important tasks within the Graduate School Office. Furthermore the Graduate School Office is assigned to the division Academic Affairs.

Eva Benkova (Dean of the Graduate School)

Extension: 5301, E-Mail: eva.benkova@ist.ac.at

Maria Trofimova (Unit Head Graduate School Office)

Extension: 1701, E-Mail: maria.trofimova@ist.ac.at

Grant Office

The unit **Grant Office** belongs also to Academic Affairs and is responsible for the orderly submitting, handling and statement of funding projects. The interface starts with the presentation of submission procedures, support in the submission process ending with the project settlement.

The Grant Office provides expertise on funding opportunities, will support you in the application phase and in managing the project.

Grant Office services include information about funding opportunities, assistance during the preparation of grant applications, and financial grant management including interim and final financial reports.

Please always notify the Grant Office of your intent to submit a proposal as early as possible (proposals are to be notified at least 2 weeks before the actual deadline).

Marie Kolmanova (Grant Office: Post-Award / Team Lead)

Extension: 1038, E-Mail: marie.kolmanova@ist.ac.at

Communications & Events

The **communications** team supports the managing team, the scientists and the administration in any kind of public relations and public affairs. The team maintains contacts with and responds to inquiries by organizations of public, representational or political nature, and the media. In addition it produces, commissions, administers and distributes texts and images in any given format from press releases, news in social media and business cards to the annual report in print. Our office is also in charge of activities such as internal communications, content management of the website and social media, outreach activities, and public events (like Open Campus Day, IST Lectures).

Fundraising: The team coordinates the Institute's fundraising activities and manages the relations to existing and potential donors and sponsor.

Michaela Klement (Head of Communications & Events)

Extension: 1092, E-Mail: michaela.klement@ist.ac.at

Construction and Maintenance

This Division is one of the largest of the campus – our staff busy in building and maintaining the Campus facilities. Engineers, architects, highly experienced electricians, heating and plumbing specialists, control engineers and technicians are working hard to ensure a smooth operation of the technical systems of the campus. The department is responsible for the development and construction of the ISTA campus. Ensuring the proper functioning of all services to secure a pleasant working environment is an everyday task. Furthermore, the security measures of the Campus, especially the protection of employees and the prevention of any harm to the environment as well as the administration of keys, access cards and fire and all related measures are administered and executed by the Construction & Maintenance Team. To guarantee a quick response to the needs of all scientists and staff, this division employs a request tracker via email. In addition to that, the emergency number ensures that help will be provided during nighttime, weekends and even holidays. Whatever problem or need arises, the Construction & Maintenance Team are happy to help in a professional and fast manner.

Stefan Hipfinger (Head of Construction & Maintenance)

Extension: 1005, E-Mail: stefan.hipfinger@ist.ac.at

EHS – Environment, Health and Safety

The **EHS** unit is your contact point for any issue around environmental protection, health and occupational safety. Amongst others we provide guidance, support and legal advice in the following:

Workplace evaluation, handling of hazardous substances, personal protective equipment, maternity protection; waste management, air and water pollution prevention and energy efficiency; ergonomics, vaccinations, stress and many other health prevention programs. The occupational physician and the safety officer are part of the team. On demand we organise trainings in first aid, firefighting, general safety briefings, prevention and analysis tools, safety risk management etc.

Susanne Wertheimer-Wiegel (Head of EHS)

Extension: 1087, E-Mail: susanne.wertheimer-wiegel@ist.ac.at

The Campus Services

The **Campus Services** Team (find them in I.01) is responsible for the housing on Campus and will gladly support you finding either an apartment or a room in our Guesthouse, both located on Campus, each upon availability. We also organize a place in the Kindergarten "Froschkönig" for your child/-ren (children aged 1 year and above) and coordinate the IST shuttle bus. We take care of the Cafeteria and the Café/Pub and organize events for external companies, support the bridge kitchen with coffee, tea, milk and fruits and all buildings with water dispensers. Furthermore we are responsible for the sports facilities on Campus such as the soccer field, tennis court, or the in-house gym. Campus Services organize the regular fitness training in our fitness center on Mondays as well as therapeutic massages in a bi-weekly rhythm on campus.

For your leisure hours we offer table soccer, table tennis, pool billiard and a piano in the lecture hall.

Cafeteria

ISTA operates a restaurant and a pub on the campus.

The pub is the ideal place to get together with colleagues, serving coffee, beer, juices, snacks and sweets in a laid-back atmosphere. Additionally, ISTA catering covers the full range of services, from coffee break to self-service lunch and first-class dinner.

Our new cafeteria on campus has been opened officially since May 2, 2016. The new cafeteria is operated by SV (Österreich) GmbH and offers freshly cooked food at lunch time (11.30 am until 2 pm) also with a focus on ethnic food that should reflect the international diversity on campus. You can either pay cash or you can activate your access card, upload money on it and pay with this card. Kindly note: If the access card is used for payment, the amount will be deducted directly from salary of the following month. Please find more information on the new cafeteria and the card procedure here:

https://intranet.ist.ac.at/istwiki/index.php/Cafeteria

Guesthouse

The Guesthouse offers 38 rooms and is located on the second and third floor in the Central Building. The rooms are categorised as 24 single rooms (15 - 20m²), 6 single rooms for people with disabilities (20 - 23m²), 4 double rooms (20 – 25m²) and 4 junior suites (35 – 40m²). All rooms are equipped with a wardrobe, little refrigerator, bed, desk, cupboard, bathroom, air condition/heating, satellite television, wardrobe and wireless LAN. On the second floor of the Guesthouse you will also find a kitchen equipped with all necessary cooking equipment, plates and cutlery, a refrigerator and freezer, microwave and an oven. All guests living in the guesthouse can use this kitchen free of charge.

https://intranet.ist.ac.at/istwiki/index.php/Campus_Services

Extension: 1077, E-Mail: campus.services@ist.ac.at

Finance

The **Finance** division consists of the following departments: Accounting, Controlling and Procurement.

The **Accounting** department is mainly responsible for adequate and orderly financial transactions and data. The responsibilities of **Controlling** include among other topics cost accounting, budgeting and reporting.

The **Procurement department** is taking care for an orderly procurement of supplies and services. Specifically, the unit is responsible for compliance with public procurement law and the internal rules. In the case of purchasing major equipment or services, it is very important to contact procurement as early as possible, to discuss the right way for handling and purchasing. Furthermore Procurement is assigned to the division Controlling.

Wolfgang Fohringer (Head of Finance)

Extension: 1090, E-Mail: wolfgang.fohringer@ist.ac.at

Franz Janu (Financial Controlling/Team Lead Controlling)

Extension: 1147, E-Mail: franz.janu@ist.ac.at

Human Resources

The **Human Resources** team provides counselling and support for scientists, scientific service units and administration employees mainly in the following fields of Human Resources Management:

Recruiting SSUs and administration, staff development, labour law, payroll, apprentices & trainees, HR information system (time management and reports), Austrian social security system and hospitality (residence permits, relocation, legal matters of family and childcare, self- and co-insurance within the Austrian social security system).

Karin Reisinger (Head of Human Resources)

Extension: 1143, E-Mail: karin.reisinger@ist.ac.at

Area Administrators and Assistants to Research Groups

Each **Area Administrator** of the respective **Research Area** supports their area chair and serves as A2P with a reduced faculty load. The area administrators meet regularly with each other and with the central administration. They coordinate the onboarding process for newly hired faculty and they supervise other A2Ps.

The **Assistants to the Professors and Research Groups** take care of the administrative tasks related to the professor and his/her research group to enable them to focus on their scientific work.

Amongst these tasks are for example: travel arrangements, expense reimbursements, local arrangements for scientific visitors, organising talks, regular meetings, small workshops and other events, order and provide office supplies, coordinate preparations and work space for new employees and internships in collaboration with other departments (Construction/IT/Human Resources/Academic Affairs/Campus Services), provide general or specific information and assistance on various subjects. Usually, one assistant works with several professors and their research groups on a “shared assistant” basis. Depending on the individual requirements, a professor can also have one assistant for his/her group only.

This team is subordinated to the Unit Human Resources.

Louis Alesch (Teamleader of Assistant to Professor)

Extension: 1032, E-Mail: louis.alesch@ist.ac.at

Campus IT Services

The **IT services** at ISTA include networking and server infrastructure and support for laptop and desktop computers, tablets and mobile phones. In addition, a cluster of machines for scientific computing is provided and programmers support the scientists in their software needs.

Stephan Stadlbauer (Head of IT)

Extension: 1158, E-Mail: stephan.stadlbauer@ist.ac.at

Scientific Head of IT: Christopher Wojtan

Technology Transfer

From Science to Business

The TWIST Research Transfer and Development GmbH, ISTA's technology transfer organization, is developing the broader innovation ecosystem of the institute. As a one-stop shop, its mission is to raise awareness about the business dimension in academia, and consequently, to provide consulting and protection concerning intellectual property, license technologies developed at the Institute, nurture and finance spin-off projects, inspire and educate future founders, and liaise with other research organizations and industry. In 2021, the Spin-off Austria initiative honored ISTA's technology transfer programs and facilities supporting entrepreneurship by awarding ISTA the first place as "Leading Austria Institution" in the category "Research Institutions".

Background

Since its foundation, ISTA has recognized the important contributions to society that our researchers can make by developing new ideas and technologies. One of the founding principles of ISTA is that the Institute should play an active role in getting those technologies onto the market. Austrian federal law, in conjunction with ISTA employment contracts, awards ISTA the ownership rights to inventions and innovations made by its employees. In return, ISTA assumes responsibility for seeking appropriate intellectual property (IP) protection and identifying avenues for commercialization of its innovations. Employee inventors receive a share of any income earned by ISTA from the transfer of their discovered technologies to the market. TWIST manages the portfolio of technologies owned by ISTA. It works closely with researchers to establish strategies for transferring technologies to industry, be it through established companies or start-ups.

Supporting entrepreneurs

TWIST operates several initiatives to achieve its mission. The TWIST Talk lecture series aims to inspire researchers to explore commercialization routes for their projects. The TWIST Fellowship program evaluates and improves the marketability of results from basic science. It provides consulting, funds and infrastructure to selected students or postdocs for up to one year. Early explorative projects can obtain funding and support as TWIST Prototype Grants. The Entrepreneurship Lab is a seminar open to all of IST's staff, providing an introduction to the foundation of technology startups. To date, several projects were co-founded by scientists at ISTA and have since established themselves as technology companies with growing teams. They have also successfully received a seed investment from IST cube and other private investors.

IST Cube

IST cube is a seed fund enabling the growth of deep-tech and science-based startups and spin-offs. IST cube taps upon the experience of ISTA's tech transfer team and is located at IST Park, providing its investees with a state-of-the-art lab and office environment. The fund looks for deep tech startups in an early investment stage and is able to provide follow-on investments, with a geographic focus on the Austrian region. In 2021, IST cube successfully closed an oversubscribed financing round of 45 million euros. As per end of 2021, IST has invested into 12 technology startups.

IST Park

IST PARK, a joint initiative of ecoplus and ISTA, provides state-of-the-art infrastructure such as lab and office space to startups and SMEs that benefit from this unique location right next to IST. Currently, IST PARK houses eight tech-based companies, the IST cube spin-off fund together with five of its portfolio companies, as well as the TWIST fellows. Despite the first buildings being currently almost booked out, IST PARK remains open for requests concerning coworking desks, small office rooms, large individual offices, life science lab space, as well as custom facilities for technology companies.

Markus Wanko (Unit Head TechnologyTransferOffice)

Extension:1130, E-Mail: markus.wanko@ist.ac.at

Section 2: ACADEMIC LIFE at ISTA

2. A. Graduate School

Educating graduate students is one of the core missions of ISTA. ISTA strives to attract doctoral students from all over the world and provide them with a training as researchers of the highest international standard. The overarching goal of the ISTA Graduate School is to produce curious, open-minded scientists who are able to approach problems from multiple angles and who can compete with scientists trained at the best graduate schools worldwide.

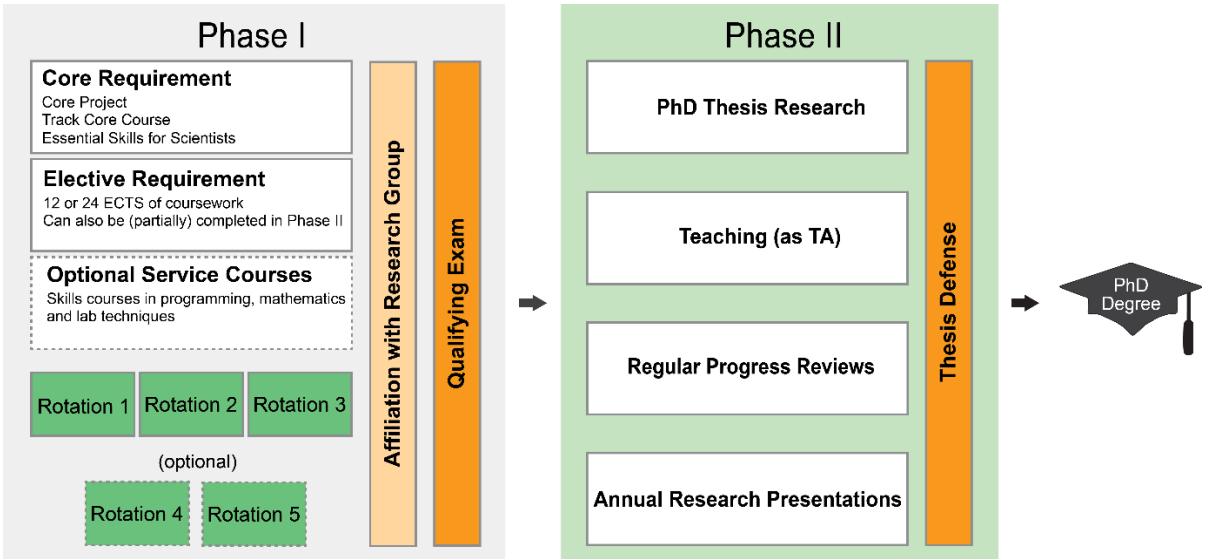
An Interdisciplinary PhD Program

Our Graduate Program is characterized by modern, comprehensive training with a special focus on interdisciplinarity. ISTA's single interdisciplinary PhD program enables students and faculty to freely collaborate across research groups and disciplines.

PhD students at ISTA can choose from seven different tracks of study as their primary track: biology, chemistry & materials, computer science, data science and scientific computing, mathematics, neuroscience, and physics. Many faculty members are associated with multiple tracks, reflecting the interdisciplinary nature of the research groups on campus.

Structure of the PhD program

The PhD program comprises two distinct phases; Phase I and Phase II.



Students spend the first phase of the PhD program gaining exposure to a diverse range of scientific fields and techniques, before conducting more specialized research in an area of their choice in the second phase of the program.

Financial Support for PhD Students

PhD students are employed by ISTA and receive internationally-competitive salaries and full social security coverage. All students are offered 5-year employment contracts. Students can finish their program earlier – in 4 or 4.5 years – or ask for a year-long contract extension, depending on the nature of the research. All students making reasonable progress are fully funded until the submission of their PhD thesis.

Annual Call for PhD Students

Admission to ISTA's Graduate School is open to prospective students holding either a bachelor's or a master's degree in science. ISTA processes applications to its PhD program once per year. The application portal opens in the Fall.

PhD website

For further information, please visit our webpage https://phd.ista.ac.at/

2. B. Postdocs

Highly qualified candidates who have recently completed their PhD or equivalent in the natural or computer sciences, mathematics or any related discipline are eligible to apply for a full-time postdoctoral position at ISTA.

ISTA brings together the faculty, facilities, and support to help postdocs develop the skills necessary for their next career steps elsewhere. Postdocs interact closely with colleagues from different fields through joint projects and events, and have access to state-of-the art facilities from bioimaging to nanofabrication and scientific computing.

A postdoctoral fellow can be appointed for a period of up to five years. Candidates are selected by the head of a research group (Professor or Assistant Professor).

2. C. Associations

Graduate Students' Association

The Graduate Students' Association (GSA) represents the students of the ISTA graduate school. It serves as a platform for exchanging opinions and fostering communication between students, and constitutes an interface between the ISTA graduate students and the rest of the institute.

When joining the institute, every graduate student automatically becomes a member of the GSA, but this does not entail additional commitments per se. However, there are two elected student representatives who communicate the students' ideas, feedback and criticism to the faculty. Regular meetings, organised by the GSA, promote the discussion of current issues and support networking between students.

Furthermore, whenever students should get involved into institute-wide decision processes (e.g. joining an organising committee for a particular event), every student gets the opportunity to take over these tasks as a GSA delegate. Overall, this helps to involve students in campus routine and sustains a lively interaction between graduate students and all other - scientific and non-scientific - units, which has been fruitful in the last two years.

Postdoc Association

The Postdoc Association (PDA) represents the post-doctoral researchers of ISTA. The goal of the PDA is to support and improve the research and social environment for postdocs at the ISTA.

In particular, the responsibilities of the PDA are communicating with the other bodies of the Institute (administration, graduate students, faculty) in an efficient and concise manner, organizing events, proposing and realizing scientific events, such as workshops (career planning, grant proposal writing), establishing ties to other PDAs in the vicinity of the Institute, and organizing the Postdoc Mentoring Program.

2. D. Regular Events

The Institute Colloquium

The Institute Colloquium is the principal research seminar at ISTA. Scientists from around the world and from across all disciplines of the natural sciences are invited to present their latest findings. The Institute Colloquium has an interdisciplinary flavor and is meant to be of general interest to the research community of ISTA as well as that of Vienna and surroundings. The Institute Colloquium takes place on Mondays at 4:30 pm in the Raiffeisen Lecture Hall.

Think & Drink

Think & Drink is a weekly seminar at ISTA. Students and postdocs from ISTA and from across all its disciplines are invited to present their ideas and work. Think & Drink has an interdisciplinary flavour and is meant to engage the general research community at ISTA.

Public Outreach Events

ISTA actively seeks an ongoing interaction with the public – through the IST Lecture series, where renowned international scientists are invited to give public talks on campus, through the annual Open Campus Day as well as through the Science-Industry Talk. Educating the public about the importance and impact of basic science is one of our core missions.

ISTA Lecture Series

The IST Lectures are targeted towards a general audience interested in current developments in science. The speakers are asked to provide sufficient background information for non-experts and, at the same time, go into detailed explanations of a recent scientific topic. Each talk is followed by a Questions and Answers session. The events are concluded by a social get-together offering further possibilities for conversations with the speaker.

Science-Industry Talk

This event series is a joint initiative of ISTA and the Federation of Austrian Industries, as a signal for the good partnership between industry and basic research in Austria. The event takes place regularly to enable the intellectual exchange of opinions and facts between science and business.

ISTA Open Campus

Every year in the beginning of June ISTA opens its doors to celebrate its establishment. The Open Campus is a “research party” for the whole family. Interactive research islands are prepared by young scientists of ISTA. Hands-on experiments let children discover the fun of research. Guided tours provide background information about ISTA and lead into the labs or scientific service facilities. People are also invited to listen to the family lecture and to enjoy the science comedy. Music and food round off the program.

Section 3: WORKING at ISTA

3. A. Getting Around

Campus Map

Campus and Parking

The ISTA Campus is located within the village of Maria Gugging, which is a district of Klosterneuburg.

Please visit our website http://ist.ac.at/visit-us/directions/ for further information about location, directions and public transport. There is a sufficient number of parking places on campus; however ISTA encourages the use of bicycles and public transport.

IST Shuttle Bus

ISTA provides a shuttle bus (Line 142) for anybody traveling from Vienna-Heiligenstadt to the campus (and return) to expand the public bus service. To offer a comfortable working environment the bus is equipped with working tables and Wi-Fi. The IST Shuttle bus connects the underground network (U4 Heiligenstadt) and ISTA with only one stop at the bus stop "Klosterneuburg Stadtplatz". That leads to a reduction in traveling time compared to the public bus.

The IST shuttle bus can be used by ISTA employees and also by any other person. ISTA employees can use the bus free of charge with their "ISTA staff bus ID Card". The bus fare for a single trip for other persons costs EUR 2.40 per way. The ticket can be purchased in the bus at the driver.

ISTA shuttle bus ID cards for all ISTA employees are issued by the unit Human Resources.

Please find the IST Shuttle Bus schedule [1] below:

https://wiki.ist.ac.at/index.php/IST_shuttle_bus_&_public_transportation

Family Shuttle Bus Pass – Ticket prices for relatives of ISTA employees

Relatives of ISTA employees need to get a "Family shuttle bus pass" from the Human Resources department on campus. With this "Family shuttle bus pass“, the following prices are valid:

- Adults (16 years and older): EUR 1,00
- Children (6 years - completed age of 15 years): EUR 0,50
- Children (0 years - completed age of 6 years): FREE
- Children of ISTA employees with a "Schülerfreifahrt for the zone 230B" and a "Family shuttle bus pass" can use the ISTA shuttle bus for free.

Public Transportation in Vienna

Transportation in Vienna and its surrounding municipalities work on a zone system. Vienna is a city with many modes of public transport and that being said there are many different types of tickets.

Therefore, please make sure before you board any public transportation that you have the correct ticket.

For example the regional trains or suburban trains operated by the ÖBB don’t accept a ticket that you have bought from another public transport operator.

[1] The Bus schedule is also available in Section 6 c

Lost and Found

If you have lost or found something, please contact the reception in the administration building or the reception in the guesthouse.

Administration Reception Extension: 1044

Guesthouse Reception Extension: 1040

IST Wiki (Intranet)

You probably know about Wikipedia, the free Encyclopedia. It has millions of Articles and is a good starting point for exploring the Knowledge of the World. It is extremely open: Everyone can edit or add an article there. Even though millions of people edit it, it is still coordinated and well structured. Motivated by this success, many corporations and organizations are using Wiki software internally to manage their internal knowledge and also use it as a collaborative tool.

The IST Wiki is our intranet tool and can be found here:

https://intranet.ist.ac.at/

IST Meeting Room Booking System

Schedule is our internal meeting room and lab equipment booking tool:

https://scheduleit.ist.ac.at/Web/dashboard.php

ISTA Publication Database

The publication database (https://publist.ist.ac.at) should contain all publications published with an ISTA affiliation and the total bibliography for all professors working at ISTA.

The inserted data is used by the communications department for creating lists of publications for the ISTA newsletter and the annual report.

The library team puts a lot of effort into the support of PubList. However, scientists have a more reliable overview of their own publications. So every scientist working at ISTA should add information about her/his paper to the publication database themselves not later than two weeks after acceptance of the paper. For publication of a paper, the affiliation “ISTA” should be used in address.

The library team reviews and corrects the entries if needed as soon as possible. Precise and flawless entries support external visibility and help to generate complete publication lists for both researchers and for reports on ISTA.

Further information on how to enter publications to PubList please contact the library team or read the detailed User Guide on creating entries
https://ist.ac.at/fileadmin/user_upload/services_pages/library/support/pdf_files/_PubList_create_Documentation.pdf

More information can be found at: https://publist.ist.ac.at/

ISTA Repositories

Publication Repository

IST PubRep https://repository.ist.ac.at/ is the institutional repository containing scholarly papers, such as publications with a Creative Commons license, preprints, postprints, technical reports and dissertations in full text. In PubRep you can only deposit and find records, which were published under ISTA affiliation.

Most of funding agencies require the open access publication of funded research results and IST DataRep helps fulfilling these requirements (e.g. OpenAire compliance).

Further information about

- depositing Technical Reports in the repository can be found at:
- http://ist.ac.at/fileadmin/user_upload/services_pages/library/support/pdf_files/_TechnicalReport_Documentation.pdf
- Green Open Access can be found at:
- http://ist.ac.at/open-access/how-to-publish-oa/open-access-green/

Data Repository:

IST DataRep (http://ist.ac.at/datarep) is the institutional repository for publishing research output of ISTA affiliates. IST DataRep was implemented to help scientists fulfill the requirements from funding bodies and to meet the growing impact of publishing research data.

Further information about

- the repository can be found at:
- http://ist.ac.at/library/library-services/data-repository/
- depositing research data in the repository can be found at:
- http://ist.ac.at/fileadmin/user_upload/services_pages/library/support/pdf_files/_DataRep_Checklist.pdf
- http://ist.ac.at/fileadmin/user_upload/services_pages/library/support/pdf_files/_DataRep_Documentation.pdf
- Open Access to data can be found at:
- http://ist.ac.at/open-access/open-access-to-data/

3. B. Quick Guide

Contact Persons

1. Contacts for Scientists:

Issue(s)	Contact	Target group
First point of contact, especially for all issues related to research group/work, and academic program, as well as time-management issues	Group leader	All scientists
Scientific and career advice	Thesis Committee members	Students
Academic field-specific advice, e.g. on rotation and course choices	Track representatives: https://phd.pages.ist.ac.at/people/	Students
General advice on PhD, e.g. assignments and affiliation	Mentors: https://phd.pages.ist.ac.at/people/	Unaffiliated students
Administration and organizational issues of the PhD program. E.g. Academic requirements of the PhD program, Athena.	Graduate School Office: gradschool@ist.ac.at	Students
Administration and organizational issues of postdocs, scientific interns, and scientific visitors	PhD Holders (Postdocs, visiting professors, postdoctoral visiting scientists, academic visitors): Postdoc office (pdo@ist.ac.at) Non-PhD holders (Scientific interns, Predoctoral visiting scientists, academic visitors): Graduate school office (predoc@ist.ac.at)	Postdocs Scientific visitors Scientific interns
Representation of students in issues concerning research and social environment, social/scientific events/workshops, peer support	Graduate Student Association: https://wiki.ist.ac.at/index.php/Graduate_Student_Association	Students
Representation of postdocs in issues concerning research and social environment, social/scientific events/workshops, peer support	PostDoc Association (PDA) (postdoc-association@ist.ac.at)	Postdocs
Business travel, reimbursements, intercultural advice	International Officer Vlad Cozac (vlad.cozac@ist.ac.at)	Unaffiliated students

General administrative issues, purchasing, time sheets, vacation, business travel, scientific visitors, reimbursements	Assistants to Professors	All scientists
Campus housing (apartments, guesthouse)	Campus services apartments@ist.ac.at guesthouse@ist.ac.at	All scientists
Grant application and management, funding opportunities	Grant Office grants@ist.ac.at	All scientists
Employment contracts, contract amendments, Austrian Labor Law, Austrian social security system, additional health/accident insurance, company pension family topics: maternity/ paternity leave, co-insurance	Human Resources Arzu Kaya, Zoe Brandstätter, Kerstin Potzmann, Renate Cummins hr.administration@ist.ac.at	All scientists
Visa & residence permits	Human Resources **Visa:** Vlad Cozac (vlad.cozac@ist.ac.at) **Residence permits:** Zoe Brandstätter (zoe.brandstätter@ist.ac.at)	All scientists
Pay slips and pay rolling	Human Resources Iris Pignitter, Nina Plachy, Daniel Parfuß payroll@ist.ac.at	All scientists
Family Services Topics, Dual Career, Good Practice Officer	Human Resources Hilde Janssens (hilde.janssens@ist.ac.at)	All scientists
International Services topics: visa, residence permit, moving to Austria	Vlad Cozac (vlad.cozac@ist.ac.at)	All scientists

2. Contacts for Administrative/SSU Staff:

Issue(s)	**Contact**
First point of contact	Direct supervisor (unit/division head, team leader)
Employment contracts, contract amendments, Austrian Labor Law, Austrian social security system, additional health/accident insurance, company pension, sick leaves, time recording family topics: parenthood, childcare, maternity/ paternity leave, co-insurance	Human Resources Lisa-Marie Reinthaler Karin Anderl hr.administration@ist.ac.at
Recruiting, staff development & further training	Human Resources Clara Kaiser (clara.kaiser@ist.ac.at) Ina-Maria Haas (ihaas@ist.ac.at) Anna Klail (anna.klail@ist.ac.at) Heidemarie Binishofer (heidemarie.binishofer@ist.ac.at)
Pay slips and pay rolling	Human Resources Iris Pignitter, Nina Plachy, Daniel Parfuß payroll@ist.ac.at
Kindergarten	Campus Services Lydia Dussmann (lydia.dussmann@ist.ac.at)
Procurement Ordering	Procurement Marcus Liebhart (marcus.liebhart@ist.ac.at)
Visa & residence permits	Human Resources **Visa:** Vlad Cozac (vlad.cozac@ist.ac.at) **Residence permits:** Zoe Brandstätter (zoe.brandstaetter@ist.ac.at)
Building/construction, repair/maintenance, and security issues on campus	Construction Hotline +43 664 8850 9133 construction-info@ist.ac.at

3. Persons of Trust:

For certain issues, ISTA's employees may get in contact with one of the persons of trust, who are strictly subjected to confidentiality. They act as a first contact point, may give general support and are able to provide information about further help resources. With the employee's approval, a person of trust may initiate a mediation process (external mediator) or other conflict resolution measures.

Employees are encouraged to consult the person they feel most comfortable with from the following list of persons of trust to help resolve conflicts at an early stage:

Person	**Function**	**Concern/ objective**
Mario Debono mario.debono@ist.ac.at +43 2243 9000 2144 Verena Seiboth verena.seiboth@ist.ac.at +43 664 88326086	Ombudspersons for scientific staff	Possible incidences of misconduct related to research, teaching, and/or academic supervision
Beata Lutomska-Kaufmann physician@ist.ac.at +43 664 42 49 668	Occupational physician	General health issues; Addictions
Samira Baig samira@baig.at +43 664 473 69 50	Occupational psychologist	Work-related psychological issues; Interpersonal issues; Mental health issues; Addictions
Hilde Janssens hilde.janssens@ist.ac.at +43 2243 9000 1046	Fair treatment and antidiscrimination Interpersonal issues	Discrimination, unequal treatment on the grounds of gender, age, ethnicity, sexual orientation, religion, mental or physical abilities Equality, gender mainstreaming Bullying ("mobbing") (Sexual) harassment Conflict resolution
Vlad Cozac vlad.cozac@ist.ac.at +43 2243 9000 1083	Interpersonal issues	
Daniela Klammer daniela.klammer@ist.ac.at +43 2243 9000 1095	Works council	General support relating to employment, benefits, working conditions, and employee wellbeing

Some external services and resources for private emergencies

For issues of a more personal nature, the following external services provide support for specific concerns in German and English:

Concern/objective	Support	Contact
Emergencies of any kind (triggers police and ambulance involvement, depending on the situation)	European Emergency Number	Emergency number: 112
Health and safety emergencies, illegal activity of any kind	**Fire department**	**Emergency number: 122**
	Police	**Emergency number: 133**
	Ambulance	**Emergency number: 144**
(Domestic) violence against women (and children)	Phone and individual counseling, court assistance, legal advice, medical advice; shelter	Women's shelter Frauenhäuser Wien Emergency number: +43 5 77 22 Service line: +43 1 512 3839 http://www.frauenhaeuser-wien.at/
Women in emergency situations	Contacts to institutions, record incidents of violence, access to emergency calls	Fem:HELP mobile phone app https://www.bmbf.gv.at/frauen/services/fem_help_app.html
Private crisis, hard fates	Psycho-social support	Akut-Team Niederösterreich Emergency number: +43 2742 144
Private crisis, family issues, conflicts	Confidential advice	Telephone Counseling "142" Emergency number: 142
Private crisis	Psycho-social support	Psychiatric immediate help Emergency number: +43 1 31330
Problems with debts	Advice on the topic of debts	Debt advice service Vienna Contact: +43 1 330 87 35 http://www.schuldnerberatung-wien.at schuldnerberatung@fsw.at
Eating disorders	Hotline	Eating disorders hotline Hotline: +43 800 20 11 20 Mondays-Thursdays, 12-5pm

Addictions	Advice and support	Addiction Treatment Center Hotline: +43 1 4000 53799 Gumpendorfer Gürtel 8, 1060 Wien http://www.suchthilfe.at/beratung-betreuung-wohnen/jedmayer/

Emergency Numbers

Ambulance: 144

Hospital Klosterneuburg (for accidents) open 24 hours, 7 days a week,
phone: **+43 2243/9004-0**
Please take your e-card with you.

General practitioners: 141 (Mo to Fri: 7pm - 7am, Sat and Sun all day) - a tape tells you (in German) which doctor is on duty

Pharmacies on duty (weekends): 1455 - a tape tells you (in German) which pharmacy is on duty

Pharmacies in Klosterneuburg:

- Die Blaue Apotheke, Hauptstrasse 153, Klosterneuburg-Kierling (close to ISTA)
- Stadt-Apotheke, Albrechtstrasse 39, Klosterneuburg
- Apotheke "Zur heiligen. Agnes" Wiener Strasse 104, Klosterneuburg
- Rathaus-Apotheke, Rathausplatz 13, Klosterneuburg
- Apotheke "Zum heiligen Leopold", Stadtplatz 8, Klosterneuburg

3. C. Your Salary and Taxes

Gross Salary and Net Salary

The salary stated in your employment contract is a gross salary. The gross salary is minimized through employee´s contributions for social insurance and income tax.

The remaining amount is your net salary, which is transferred to your bank account every month. You will find the gross salary, the two deductions and your net salary itemized on your pay check. The social insurance contributions and the income tax will be deducted automatically by the employer and passed on to the relevant offices each month.

The social insurance contributions are covered by employer and employee. The contribution of the employee for 2023 is 18.12 % of the amount subject to social insurance contribution (that is normally the gross salary, increased through physical benefits).

A statutory “maximum contribution basis” puts a ceiling on the monthly gross salary used for the calculation of the contributions. If your income exceeds € 5,850 (value for 2023) you will only pay social contribution for the maximum amount of € 5,850.

13th and 14th Salary

It is important to know, that with the June (13th) and November (14th) salaries an additional gross salary is paid out as special payments. These special payments are taxed at a reduced tax rate of 6%. Therefore your net salary in June and November is much higher than your regular monthly salary.

Income Tax Rates

The income of employees has to be taxed. The income tax is calculated from the taxable salary of the employee (that is gross salary deducted by social insurance contribution, deduction amounts, commuter tax relief, etc.). The income tax is structured progressively.

That means, the yearly gross income is split in several parts and is taxed with increasing tax rates:

- salary up to € 11,000/year – tax rate: 0 %
- salary between € 11,001 and € 18,000/year - tax rate: 20 %
- salary between € 18,001 up to € 31,000/year - tax rate: 30 %
- salary between € 31,001 up to € 60,000/year - tax rate: 41 %
- salary between € 60,001 up to € 90,000/year - tax rate: 48 %
- salary of € 90,001 up to € 1,000,000/year – tax rate: 50 %
- salary of € 1,000,001/year onwards – tax rate: 55 %

Severance Payment ("Mitarbeitervorsorge")

The employer pays 1.53% of your monthly gross salary into a fund ("Mitarbeitervorsorgekasse"), it's a kind of social benefit in Austria that every employee receives from the employer. APK (www.apk-mvk.at) is the company holding your severance pay. Please note that the amount is based on your gross salary but not deducted from it. Instead, the employer pays the calculated amount on top of it.

When your employment ends APK will release the accumulated amount (unless you resign before the end of your contract). In case your employment lasted for at least 3 years or there was an amicable termination or employer terminated the employment, APK will pay the money to you. If your employment was less you can get the money transferred to the next company within Austria. If your employment was less than 3 years and you're leaving Austria, you'll have to wait until your retirement to get the money paid out.

Note: In any case, it's your responsibility to contact APK as they will not get in touch with you automatically when your employment ends.

Commuting Allowance

There is the possibility to claim for commuting allowance when filing your voluntary tax return. Your travel to our 'IST Shuttle Bus' in Heiligenstadt will be counted as your travel to work, and needs to be more than 20km.

Annual Tax Declaration

In Austria, there is no compulsory tax declaration, unless you have a worldwide income (like rent for a flat back home, or shares etc.). You can submit at the beginning of each next year your application for employee assessment to the tax office electronically via FinanzOnline trough the link https://finanzonline.bmf.gv.at/fon/.

If you need assistance with the annual employee tax assessment, we can recommend a renowned tax consultancy firm that offers this service. Please note that there is a charge for this service - for a standard employee tax assessment the cost is € 180 (as of 2021). To receive the special price, please indicate that you work at IST when you contact the tax consultant. The contact details are as follows:

Company: Die Wirtschaftstreuhänder

Tax advisor: Johann Pöcher

E-Mail: poecher@diewt.at

Phone: +43 2266 694-42 or +43 664/88315618 or +43 2266 694-44

Address: Bahnhofplatz 11, 2000 Stockerau

Website: https://www.diewirtschaftstreuhaender.at

Furthermore, please find more information on this topic on our Wiki page through https://wiki.ist.ac.at/index.php/Tax_return. Please also be informed, that a list of further tax advisors contacts is available in the Human Resources department (hr.administration@ist.ac.at).

Tax Benefits for Researchers and Scientists Moving to Austria

As a foreign researcher or scientist, relocating to Austria from abroad, you may be entitled to a favourable tax treatment in Austria if your relocation is of public interest for Austria and your application is submitted in due time.

Preconditions for tax advantages:

Foreign researchers and scientists can benefit from special tax advantages in Austria if the following preconditions are met:

- The relocation is of public interest for Austria because it supports science and research
- The center of vital interest is shifted to Austria (e.g. relocation of the family)
- Depending on the claimed benefit the center of vital interest of the relocating researcher or scientist has not been in Austria within the last 5 - 10 years
- Written application by the relocating researcher or scientist within 6 months after the relocation to the Austrian Federal Ministry of Finance (Please note! No extension of application deadline possible)

We strongly recommend to contact a tax advisor who can assist with the preparation and filing of the necessary written application to the Austrian tax authorities for the granting of tax benefits.

The renowned tax consultancy companies “Rabel & Partner” and “Die Wirtschaftstreuhänder” are recommendable for receiving assistance. Please contact Human Resources (hr.administration@ist.ac.at) for obtaining the detailed contact information of the mentioned tax consultancy companies including more information about this topic.

3. D. Austrian Social Security System

How Austrian Social Insurance Works

Austria has a statutory social security system and employees are automatically covered by social insurance effective as of their employment start. Thereby employers are obliged to register their employees within the respective social insurance office of ÖGK (Österreichische Gesundheitskasse).

Social insurance in Austria is composed of the following pillars, if the agreed salary is above the yearly minimal employment threshold:

- Health insurance
- Pension insurance
- Unemployment insurance
- Accident insurance

Minimal employments provide only coverage for an accident insurance. Please see section *"Self-insurance while having a minimal employment"* for information about concluding health and pension insurance for minimal employments. The value for the minimal employment threshold in 2023 amounts to € 500.91/month.

How Social Insurance is Financed

Social insurance is financed by social insurance contributions, which are paid both by employer and employee. The level of the contributions depends on the gross income of the employee:

- employer contribution for 2023: 21.03 %
- employee contribution for 2023: 18.12 %

A statutory "maximum contribution basis" puts a ceiling on the monthly gross salary used for the calculation of the contributions, namely € 5,850. The amount of the employee's contribution is deducted automatically from the pay check each month and is paid together with the employer's contribution to the social insurance office. This deduction can be seen on your pay slip.

Benefits of the Statutory Health Insurance

Coverage of the Statutory Health Insurance

Generally speaking, most of the rendered medical services are paid by the statutory health insurance for insured persons. The statutory health insurance covers e.g.:

- Treatments for illnesses and accidents of all kinds by contracted physicians (medical treatment, drugs, medical aids, physiotherapy)
- Unemployment caused by illness (only for a limited period)
- Maternity pay
- Hospitalization and care (fees may apply)
- Dental treatments (fees may apply e.g. oral hygiene, injection)
- Yearly preventive health checks

However, there are some services which are not covered by the health insurance, e.g.:

- Implants at the dentist (in this case only the amount for a prosthesis will be paid)
- Fillings at the dentist (please be aware that for molars only amalgam fillings are covered)
- Therapies, if not prescribed from a physician
- Fees for medicines

Please note: If a treatment is not paid by the statutory health insurance, the physician will inform the patient about the costs before the treatment takes place. However, please ask every time if any costs will apply before you undertake a medical treatment in order to be on the safe side.

Furthermore, also persons who have no insurance in Austria are entitled to medical services, however they need to pay the invoices privately.

Additional Services of a Private Health and Accident Insurance

A private health insurance can be concluded at any time, also in addition to the statutory health insurance. Depending on the chosen private health insurance contract, it covers certain additional services and often offers more comfort.

There are special-class insurances ("Sonderklasse"), that offer for example the following services:

In case of hospitalization choosing hospitals and physicians, more comfortable rooms such as only 2 patients sharing a room (or a single room), hospital transportation costs, coverage of stationary treatment costs, policies for coverage of additional costs for specific dental treatments, medical aids (e.g. glasses, contact lenses) or alternative healing methods (e.g. physical therapy).

A private accident insurance is harmonizing the financial disadvantages that occur due to leisure accidents. Depending on the chosen private accident insurance contract, it offers following combinable services:

Accident costs e.g. rescue and recovery costs, payment in case of a permanent disability depending on the disability degree, insured sum and tariff, receipt of survivor's benefit in case of accidental death.

Which Physician Can I Consult?

There are private physicians and panel physicians (as well as private hospitals and panel hospitals) in Austria. Panel physicians have a contract with different regional health insurance companies (the regional health insurance responsible for the employee depends on the habitual place of the employer and in case of ISTA, it is the "Österreichische Gesundheitskasse – abbreviated: ÖGK").

The social insurance covers most of the treatments by panel physicians as well as stays and treatments at panel hospitals – you only need to show the e-card.

E-card

Each employee receives the e-card approximately 2 weeks after the start of the first employment. This small chip card contains the name as well as the social insurance number (10-digits: "4 numbers" and date of birth "ddmmyy") and has to be presented at any use of health care (physicians and hospitals).

If you need to see a doctor and you haven't received the e-card yet, you can go to any public doctor and inform him/her that you haven't received the e-card yet. Usually you will have to provide your social security number and pay a bond. As soon as you have received the e-card, you have to go to the doctor again, present your e-card and you will get the bond back. Otherwise, you can also go to any private doctor and pay for the examination and then you can apply for a partial reimbursement at the ÖGK. Please note that you will not be reimbursed if a public doctor issues an invoice as a private doctor.

Please be advised that as of January 2020, only e-cards with pictures on them will be issued. In case there is no picture of you in the database, you need to submit a passport picture before you can receive your e-card.

How to submit a photo for the E-Card?

The Austrian government has introduced some important changes to the health insurance system effective as of January 1, 2020. Among other important changes as of January 2020, new e-cards will be issued, which will also include a photo of the insured person. Unfortunately, only insured persons, from whom the Austrian authorities already have a picture on file, will receive a new e-card automatically. If there is no picture on file, you **will not automatically receive a new e-card** when the old one expires!

No action is needed

No action is needed from your side if the ÖGK has already a photo from you in their database. This might be the case if a photo is available from other sources such as from a passport, identity card, cheque card driving license or from the register of foreigners (e.g. alien's passport, convention passport, residence permit / red-white-red card or identity card for foreigners). **However, owning one of these documents does not guarantee that a picture of you is in the database!** Should a photo be on file, the new e-card with photo will arrive in time before the old one expires, at the latest by the end of 2023.

If you are not sure whether the ÖGK has a photo from you in their database or not and you already have an e-card please verify this online (https://www.chipkarte.at/ecfoto/?portal=ecardportal&contentid=10007.835042).

Action is needed

Action is needed if the ÖGK does not have a photo from you or in case you have not yet received an e-card at all (e.g. new employees within the first few weeks of their employment). You will not automatically receive a new e-card when the old one expires nor will a first e-card for new employees be issued at all. Please be aware that without a valid e-card, public health services may not be used free of charge. Therefore, **we recommend to submit a photo to the ÖGK as soon as possible!**

How to submit a picture

Generally, we recommend to **submit a picture as soon as possible**, even if your e-card is still valid!

Children below the age of 14 are exempt from this change and will still have e-cards without pictures.

- The photo for the e-card must meet the criteria of a passport photo and must not be older than 6 months.
- You must hand in the photo in person and have your e-card or social security number with you.
- If you have Austrian citizenship, you must present an official photo ID and your original proof of Austrian citizenship.
- If you do not have Austrian citizenship, you must show the original of your travel document.

Authorities

The following authorities in Vienna and Lower Austria will proceed your photo submission. Please make sure to arrange an appointment in advance via their online tool (https://citizen.bmi.gv.at/at.gv.bmi.fnsetvweb-p/etv/public/Terminvereinbarung).

Lower Austria:

Polizeikommissariat, PK Schwechat

2320 Schwechat, Wiener Straße 13

Monday to Friday 8am-1pm

T: +43 59133/36 - 5030

Polizeikommissariat, PK Wiener Neustadt

2700 Wiener Neustadt, Burgplatz 2

Monday to Friday 8am-1pm

T: +43 59133/37 – 5030

Landespolizeidirektion, LPD-SVA St. Pölten

3100 St. Pölten, Linzer Straße 47

Monday to Friday 8am-1pm

T: +43 59133/30 - 6230

Vienna:

Bundesamt für Fremdenwesen und Asyl, BFA AST Wien

1030 Wien, Landstraßer Hauptstraße 171

Monday to Friday 8am-12

T: +43 59133/98 - 7801

Polizeikommissariat, PK Ottakring

1160 Wien, Wattgasse 15

Monday to Wednesday 8am-2pm, Thursday 8am-12 and 1pm-4.30pm, Friday 8am-12

T: +43 1/31310 - 24188

Bundesamt für Fremdenwesen und Asyl, BFA RD Wien

1080 Wien, Hernalser Gürtel 6-12

Monday to Friday 8am-12

T: +43 59133/98 - 7801

Polizeikommissariat, PK Brigittenau

1200 Wien, Pappenheimgasse 33

Monday to Wednesday 8am-2pm, Thursday 8am-12 and 1pm-4.30pm, Friday 8am-12

T: +43 1/31310 - 63188

Polizeikommissariat, PK Josefstadt

1080 Wien, Fuhrmannsgasse 5

Monday to Wednesday 8am-2pm, Thursday 8am-12 and 1pm-4.30pm, Friday 8am-12

T: +43 1/31310 - 22188

Polizeikommissariat, PK Donaustadt

1220 Wien, Wagramer Str. 89

Monday to Wednesday 8am-2pm, Thursday 8am-12 and 1pm-4.30pm, Friday 8am-12

T: +43 1/31310 - 66188

Polizeikommissariat, PK Favoriten

1100 Wien, Van-der-Nüll-Gasse 11

Monday to Wednesday 8am-2pm, Thursday

8am-12 and 1pm-4.30pm, Friday 8am-12

T: +43 1/31310 - 56188

In addition to the above listed authorities, Austrian citizens may also submit their pictures at other authorities. Please find a list of them on the website of the ÖGK (https://www.chipkarte.at/cdscontent/?contentid=10007.853271).

Further information

For further information, please contact the e-card Service Hotline or the ÖGK and have a look at their (German-only) website:
(https://www.chipkarte.at/cdscontent/?contentid=10007.835062&viewmode=content).

Health insurance within Europe

Through the Austrian social insurance, an employee is also insured in EEA countries and Switzerland.
Additionally, Austria has also concluded international social security regulations with Macedonia, Montenegro, Serbia, Bosnia-Herzegovina, United Kingdom and Turkey – within the course of them advantageous rules apply. Pleases see the section "Health insurance outside Europe" for more information.

For short-term stays in Austria, while being insured through an insurance in Switzerland or another EEA-country:

Based on international social security agreements, someone who has an upright statutory insurance in an EEA-country/Switzerland can visit a panel doctor or panel hospital in Austria with the EHIC e.g. during a visit to Austria.
This option is only applicable, if the medical treatment is necessary (so preventive medical checkups or preventative controls are not covered). Furthermore, the need for a medical treatment has to occur in Austria and should not already have existed in the other EEA country/Switzerland. Generally, we highly recommend asking at the doctor/ hospital any details about the coverage, because the doctor needs to decide if there is a medical necessity.
If the EEA/Swiss citizen does not have the EHIC with her/himself, she/he could ask for a temporary replacement certificate at the statutory health insurance in the responsible EEA country/Switzerland. This certificate is a replacement for the EHIC and can be shown at the doctor/hospital.
If the person has neither the EHIC with her/himself nor can obtain the replacement certificate, the invoices have to be paid in Austria. Upon return to the responsible EEA country/Switzerland an application for cost reimbursement can be submitted at the statutory insurance. The respective statutory health insurance would take the responsibility to decide if and how much of the costs could be replaced.

For long-term stays in Austria, while being insured through an insurance in Switzerland or another EEA-country:

Persons who have an upright statutory insurance in an EEA country/Switzerland, but have their center of life in another EEA country (e.g. in Austria) or in Switzerland, can have access to medical care in the other EEA country (e.g. Austria) or in Switzerland if they fulfill the following requirements:
They need to have their center of life in Austria, hence also a main residence in Austria for a long-term duration, besides having a statutory health insurance in another country within the EEA/Switzerland.
The insured person needs to submit the so-called "S1 form" at the health insurance carrier of the EEA country/Switzerland, where he/she has a statutory health insurance (through an employment). Afterwards the respective health insurance carrier will forward this application for the S1 form to the ÖGK. Both health insurance carriers will check if the requirements are met for the application. In case of a successful application, the insured person gets entitlement to medical care in Austria, although he/she is insured in another EEA country/Switzerland.
The same processes also apply vice versa, if someone has a statutory Austrian insurance and shifts her/his center of life to another EEA country/Switzerland/contracting state. Please inform yourself about the medical coverage of each country individually.

EHIC (European Health Insurance Card)

After one year of insurance, the employee will get a new e-card with the European Health Insurance Card (EHIC) on its back. If it is not sent automatically, it has to be ordered at the ÖGK.
In case of not fulfilling the requirements for the immediate obtainment of the EHIC you can still request the "certificate as a temporary replacement for the EHIC" (in German it is called "Bescheinigung als provisorischer Ersatz für die Europäische Verischerungskarte") at the ÖGK which has a validity duration of 3 months.

The EHIC and the certificate as a temporary replacement for the EHIC are a confirmation that you have insurance coverage. Contracted physicians and contracted hospitals are obliged to accept the EHIC and the certificate. The EHIC has a certain validity date and a new EHIC will be sent automatically by the ÖGK before the expiration date.
If one moves from an EEA country/Switzerland to Austria, she/he could obtain the EHIC immediately by fulfilling certain insurance periods abroad and submitting the so-called E104 form to the ÖGK immediately. (We recommend to request the E104 form from your last insurance carrier, otherwise it may be difficult to obtain it remotely. Please note that there could be different regulations for the obtainment of the E104 form in each country.)

Cost Reimbursement

Although there is a health insurance coverage, some panel physicians or hospitals do not accept the EHIC and ask for payment by the patient due to a lack of information about the regulations. In this case, the costs for treatment must be paid at the doctor's locally and directly by the employee. Please always ask for a detailed invoice in English or German because you can submit the original invoice at the ÖGK upon your arrival and ask for partial reimbursement. The ÖGK verifies if a cost replacement is possible. Please note that up to maximum 80% of the costs that have occurred can get replaced by the ÖGK. Furthermore, the verification of the costs are based on a comparable sickness treatment that would have been provided in Austria.

The invoice must include the following information:

- Name and address of the doctor/ hospital
- Name and social insurance number of the patient (see e-card)
- Detailed description of the medical services performed and diagnosis
- Statement of the fee as well as separate statement of any additional costs for medications and medical aids
- Separate statement of taxes and dues
- Place and date of service provision
- Signature and stamp of the treating doctor
- Date of invoice

Please note: In case of local cash payment, please also ensure that a receipt for the paid amount is issued ("received in cash"). Otherwise, you have to attach a payment confirmation (e.g. a bank statement).

Health insurance outside Europe

General regulations:

Outside of an EEA country, Switzerland, Macedonia, Montenegro, Serbia, Bosnia-Herzegovina, United Kingdom and Turkey or in case of utilization of a non-statutory health insurance-accredited doctor of your choice, the costs for treatment must be paid at the doctor's locally and directly by the employee. For the partial reimbursement of the costs which were paid locally, a readable and comprehensible invoice in English or German is required (with all the details described above and in original version).

Special regulations for the United Kingdom after the Brexit as of January 1, 2021:

Austria agreed on a trade agreement with the United Kingdom. According to current agreement, the following regulations shall apply:

Persons, who are insured in Austria and their co-insured family members, are able to use the EHIC when traveling to the United Kingdom.

Also, persons who are insured in the UK are able to use their EHIC until the expiration date or GHIC (Global Health Insurance Card) in Austria. Please note that these special regulations are valid until further notice and that changes could apply in the future.

Special regulations for the contracting countries Macedonia, Montenegro, Serbia, Bosnia-Herzegovina and Turkey:

Austria concluded international social security agreements with Macedonia, Montenegro, Serbia, Bosnia-Herzegovina and Turkey. They are regulating that most of the medical treatments at panel doctors/physician shall be cost-free, if the following procedure applies:

For visits to Turkey:

As an insured person through Austrian statutory health insurance, firstly you need to request the form "Urlaubskrankenschein" at the ÖGK and secondly convert it into a national entitlement confirmation at the Turkish statutory health insurance carrier in order to get access to medical treatment at Turkish panel doctors/hospitals.

For visits to Montenegro, Serbia and Bosnia-Herzegovina:

As an insured person through Austrian statutory health insurance, the EHIC has to be presented at the foreign regional social security carrier and it will be converted into an entitlement confirmation. In **Macedonia**, a convert of the EHIC is even not necessary. Along with the entitlement confirmation/EHIC, you have access to medical treatments at panel doctors/hospitals.

For visits to Austria:

For getting medical treatment in Austria as an insured person through the statutory health insurance of one of these contracting sates, firstly an entitlement confirmation needs to be requested at the country responsible for statutory health insurance and secondly this entitlement confirmation needs to be submitted at the ÖGK. Afterwards the e-card will be issued and you get access to Austrian medical services.

In general please note: Should the foreign panel doctor/hospital decline the EHIC/entitlement confirmation, please pay the invoices locally. Afterwards you can still apply for cost reimbursement at the ÖGK. To get more information, please contact the responsible health insurance.

Pharmacy

In Austria there are both prescribed medicines and over the counter medicines. Prescribed medicines (e.g. antibiotics) are handed out only if the prescription comes from a physician. The prescription fee is € 6.85 (value for 2023) for each medicine. Over the counter medicines (e.g. some painkillers or nasal spray) can be bought without a prescription.

Pharmacies keep normal shopping hours: Monday – Friday 8am to 6pm and Saturday 8am to 12pm. In urgent cases: Pharmacies post the address of the nearest pharmacy that is on 24-hour call or on weekend service. This service rotates weekly.

Pharmacies on duty (only German) http://www.apotheker.or.at/

Medical Care

List of medical doctors: http://www.arztverzeichnis.at/suche/ (only in German)

List of hospitals: http://www.wien.gv.at/english/health-socialservices/hospitals/

Vaccinations: http://www.wien.gv.at/english/health/vaccination/index.htm

English-speaking General Practitioners in Klosterneuburg:

Dr. Friedrich Josef Ritzinger

Rathausplatz 22, 3400 Klosterneuburg

Tel: 02243/21840

Dr. Christian Thoma

Hauptstrasse 140-144, 3400 Klosterneuburg

Tel: 02243/83 8900

Dr. Silvia Puhm

Roman Himmelbauerplatz 1/1, 3400 Klosterneuburg

Tel: 02243/832300 Tel: 02243/8323-30 Cell: 0676/5493374

English-speaking Specialists in Klosterneuburg:

Dr. Gernot Steiner (Neurologist)

Wiener Strasse 106/18, 3400 Klosterneuburg

Tel: 02243/31031

Dr. Jörg Sekera (Orthopedic Specialist)

Schömergasse 1, 3400 Klosterneuburg

Tel: 02243/22176

Dr. Hanna Hajny-Parth (Physiotherapist)

Stadtplatz 4/1, 3400 Klosterneuburg
Tel: 02243/369 68 Cell: 0664/502 87 75
Webpage: http://www.physio-klosterneuburg.at/therapeutinnen/hajny-parth-hanna

Co-insurance for Partner and Children

Family members of a person who is insured within the Austrian social security system (spouse, registered or unregistered partner, children, stepchildren, foster children, grandchildren) can be co-insured in the Austrian social security system by fulfilling the following main requirements:

The family member, who should get co-insured is not allowed to have a statutory health insurance (e.g. through an employment) somewhere else (also not outside of Austria). Moreover, the habitual place of residence has to be shifted to Austria. According to Austrian legislation, the habitual place of residence in Austria can be established through a residence longer than 6 months. However, please note, that the ÖGK verifies each application individually, and depending on the detailed circumstances of each case, an application with a shorter stay could still get accepted.

Children can be co-insured until their 18th birthday. If they attend a school or a professional education (schools, studies) co-insurance is possible even until their 27th birthday.

Required documents

- Application form (provided by ISTA)
- Birth certificate (if applicant is a child)
- Marriage certificate (if applicant is a spouse)
- Austrian main address registration form („Meldezettel“) of the applicant
- Only for EEA-citizens: EEA residence proof of the applicant
- Only for Non-EEA citizens: residence permit of the applicant
- E104 form: If a person worked in another EEA country, this form is often required as a proof for the end of the respective former insurance and as a proof for the period of coverage. If the ÖGK requests such a form, please contact your former health insurer and request the E104 form.

Special requirements for partners (only applicable in case of no marriage)

- Joint household for at least 10 months (proof: registration form of insurant)

Note for non-EEA citizens:

- Co-insurance is only possible, if all family members have a respective valid residence permit for Austria.
- Relatives moving from contracting countries (Turkey, Serbia, Macedonia, Montenegro, Bosnia Herzegovina) need a deregistration documentation from the health insurance in the country of origin.

Fee

Without children, a fee of 3.4 % of the contribution basis (14x monthly gross salary, divided by 12) up to the maximum contribution basis (5,850 € monthly – value for 2023) plus proportionally special payment as to be paid for the co-insurance of the partner/spouse. As soon as a child is born, the co-insurance is free of charge (for the spouse and the child).

Process

The detailed application requirements for each family member category are stated on the website of the ÖGK. Please find further information there. Additionally, please send the application (together with scans of the required documents) by email to office-n@oegk.at as soon as possible, as the application takes some time.

Self-insurance

It is also possible to apply for a self-insurance within the Austrian Social Security System. Depending on the below mentioned three types of self-insurance, different procedures apply.

Self-insurance without having an employment:

Requirements for this type of self-insurance would be a residence in Austria and having no statutory health insurance (=no employment) somewhere else (also not within the EEA). In addition, a monthly contribution of EUR € 500.91 (value for 2023) is necessary. In case of financial difficulties, there is also the possibility to apply for a reduction of the monthly contribution costs.

In this case, a self-insurance in the health insurance system entitles to benefits in kind (in German so called "Sachleistungen" like medical assistance, hospital care, medication, preventative health checks, medicines, etc.). However, there is no entitlement for payments like maternity allowance or sick pay.

Although the self-insurance begins as of the application, there is a waiting period of 6 months for being able to claim the services. This means that during this waiting period of 6 months the applicant needs to pay the invoices by him/herself.

The requirement to fulfil a waiting period does not apply if the applicant has been insured for at least 26 weeks in the last 12 months, or if the applicant has been insured immediately preceding the commencement of self-insurance at least six weeks under the statutory insurance (ASVG) or another federal law i.e. a statutory insurance within the EU is also fine, if there was an entitlement (co-insurance) in such a health insurance, or if someone is a student. The ÖGK would then require an evidence about the insurance period from the former health insurance.

Furthermore, someone can also co-insure dependents (defined by the law) e.g. children, spouse or registered partner (but not unregistered partners) within this option, however the individual requirements for each co-insurance need to be fulfilled.

Ending the self-insurance: You can either end the self-insurance on voluntary basis (in written form, earliest possible termination is after 6 months) or the self-insurance will end, if you do not meet the requirements anymore (e.g. due to an employment, receiving unemployment benefits, receiving child-care allowance, etc.). Changes to personnel circumstances after the insurance begin need to be reported to the ÖGK immediately.

Self-insurance while having a minimal employment:

Someone who is employed based on a minimal employment and hence excluded from a full insurance, has the possibility to conclude a self-insurance in the health insurance and pension insurance system.

Requirements for this type of self-insurance would be a residence in Austria and having one or several minimal employments, but in total being employed below the minimal employment threshold (value for 2023: € 500.91 per month). In addition, a monthly contribution of EUR € 70.72 (value for 2023) for the self-insurance is necessary.

This type of self-insurance becomes effective as of the minimal employment start if this is the first claim and secondly if the application is made within 6 weeks. Otherwise, the self-insurance starts on the day following the application.

Entitlements to benefits in kind (in German so-called "Sachleistungen" medical assistance, hospital care, medicines, etc.) are provided within this self-insurance option. In addition, cash entitlements (in German so called "Geldleistungen") like maternity allowance or sick pay is guaranteed and the self-insurance period is considered for the pension insurance.

E.g. in case of receiving a pension, being health or pension insured, receiving unemployment benefits or childcare allowance you get no entitlement.

Someone can also co-insure dependents (defined by the law) e.g. children, spouse or registered partner (but not unregistered partners) within this option, however the individual requirements for each co-insurance need to be fulfilled. The co-insured dependents have no claim to cash entitlements.

Ending the self-insurance: Upon not fulfilling the requirements or at the end of a month via a voluntary termination. Changes to personnel circumstances after the insurance begin need to be reported to the ÖGK immediately.

Self-insurance for students:

Students, who have no statutory health insurance and have a (habitual) residence in Austria, may apply for a self-insurance. There are many special requirements for this type of self-insurance. Depending on the individual circumstances, the monthly contribution fee varies.

For all types of self-insurance:

Please contact the ÖGK directly to get detailed information about your individual case. Depending on the respective circumstances, the ÖGK may need to verify if someone is entitled to self-insurance and can then also inform you about the required documents.

Unemployment benefits

Who is entitled?

Every person who is unemployed, but able and willing to work and has already worked a certain time in Austria:

- **First claim**: after **52 weeks** of employment (with payments for the obligatory unemployment insurance) in Austria within the last 2 years before raising of the claim
- **Further claims**: after **28 weeks** of employment (with payments for the obligatory unemployment insurance) in Austria within the last year before raising of the claim

Note: If the first claim of unemployment benefits is before the age of 25, 26 weeks of employment in Austria (with obligatory unemployment insurance) within the last 12 month before raising of the claim is sufficient.

The eligibility for unemployment benefits also depends on the **kind of the employment contract termination**:

- **Employee terminates** the employment ("Dienstnehmerkündigung"): Employee is eligible for unemployment benefits one month after the termination.
- **Employer terminates** the employment ("Dienstgeberkündigung"): Employee is eligible for unemployment benefits immediately after the termination.
- **Employer and employee terminate** the employment **amicably** ("Einvernehmliche Auflösung"): Employee is eligible for unemployment benefits immediately after the termination.

In all cases, the health insurance is in effect from the start of the unemployment, if the claim was approved.

How to apply?

You can apply for the unemployment benefits at the respective Public Employment Service (**AMS**) **before the unemployment has started but at the latest on the 1st day of the unemployment.** Please also consider, that you need to make firstly a notification about the unemployment and secondly an application for claiming unemployment benefits.

Tools for application:

- Online tool eAMS-account https://www.e-ams.at/eams-sfa-account/p/index.jsf (registration is necessary)
  - The tool is available in German but actually very simple to fill in and send the digital forms. Also, there is a demo version for the eAMS-account, so you can test it before registering yourself and sending the forms
  - For the registration to the eAMS account: you can request the user details via phone and they will be delivered to your house address, or send an application online through https://www.e-ams.at/eams-sfa-account/pa/EsaSKontoZugangAnfordern.jsf?eamsTrack=1612367161400 or if available via the Finanzonline tool
- You can also request the application form for claiming unemployment benefits via e-mail/ phone and it will be sent to your home address. On this occasion, please also make sure to notify the AMS about your unemployment begin via phone, or via the application form attached in case of writing an e-mail.
- In person

The AMS-office you´ve to go to depends on your home address.

Contact for Klosterneuburg:
http://www.ams.at/noe/service-arbeitsuchende/arbeitsuche/geschaeftsstellen/adressen/ams-tulln

Contacts for Vienna:
http://www.ams.at/wien/service-arbeitsuchende_arbeitsuche_geschaeftsstellen_adressen.html

Calculation of unemployment benefits

The amount of the unemployment benefit depends on the yearly gross income. The calculation is done by the AMS. Calculator for unemployment benefits (only in German): http://ams.brz.gv.at/ams/alrech/

How long do I get unemployment benefits?

Basically, unemployment benefits are granted for 20 weeks and the claim will be extended after 156 weeks of employment (with obligatory unemployment insurance) in Austria to 30 weeks.

For more information please visit the website of the AMS (only in German): http://www.ams.at/ratgeber-arbeitsuchende/anspruch

Pension System

The Pension Insurance is one of the three main pillars of the Austrian social insurance system. Currently the general retirement age for men is 65 and for women 60, but this age will be increased to 65 in the next years. You can find more detailed information here:

https://www.help.gv.at/Portal.Node/hlpd/public/content/137/Seite.1370000.html

Please contact the Human Resources office if you have further questions.

Intergovernmental Pension Scheme

Social security agreement

The social security agreements contain regulations how pensions are calculated in due consideration of foreign insurance periods. These agreements guarantee:

- the crediting of insurance periods accrued in a contracting state at the examination of the pension requirements (e.g. minimum insurance period) and
- the remittance of benefits into the contracting state.

At the calculation of the pension, it will be distinguished between insurance periods which were accrued **in an EU Member State, an EEA country, in Switzerland or in any other contracting state**. Insurance periods on grounds of an occupation in a country with which Austria does not have an agreement, will not be considered for the pension crediting.

Application principle

You have to apply for the pension as soon as the requirements are met. The application has to be made in the country of residence and at the application the applicant has to point to the fact that he/she accrued insurance periods abroad. The insurance carrier will then contact the responsible authority of the respective country and initiates the "intergovernmental pension determination proceedings". This means that it is not necessary to apply for the pension individually in every contracting state.

Pension Calculation

According to the EU law and the agreements concluded by Austria, the pension has to be calculated as follows:

If the pension requirements are fulfilled (with or without the addition of the insurance periods for the entitlement), the following principle applies:

The amount of the Austrian pension is always calculated on the basis of the Austrian insurance periods (so there is no compensation of foreign insurance periods by Austria). This amount will be paid out by the Austrian insurance carrier. The foreign insurance carrier will act similarly.

If returning to Austria after the occupation, the pension acquired abroad will be paid out separately from the pension acquired domestically.

For detailed information please see our info sheet which is available at the Postdoc association and Human Resources.

Responsible authority

Pension Insurance Authority (Pensionsversicherungsanstalt = PVA)

Phone: 05 03 03 (from abroad: +43 5 03 03)

E-Mail: pva@pensionsversicherung.at

If you have any questions, please contact the authority (PVA) directly.

3. E. Family Services

Our institute has set up a parent guide for IST parents that guides through the legal framework of Austrian Labor Law and as well as IST specific arrangements. It lists the main financial benefits, and explains the basic rules and regulations regarding pregnancy, parental leave, and return to work in Austria. Furthermore, it provides also information about the available infrastructure on campus for parents and their children (e.g. nursing and baby change room, room for family care and rest, power nap room, baby changing tables).

The guideline is available at our IST Human Resources wiki page in der portal family services.

- Link to the parent guide for scientists:
  https://wiki.ist.ac.at/images/b/b2/IST_Parent_Guide_for_scientists.pdf
- Link to the parent guide for administrative and SSU employees:
  https://wiki.ist.ac.at/images/9/99/IST_Parent_Guide_for_adminSSUs.pdf

If you face difficulties to open the links above please try to open them with the web browser Chrome!

3. F. Social Benefits Summary

Apartments and Guesthouse

You have the option to choose between two types of accommodation on campus. You can either book one of our 38 guesthouse rooms (24 single rooms, 6 single rooms for people with disabilities, 4 double rooms, 4 junior suites) for short stays between 1 night and up to 6 months or you can make a reservation for one of our 31 apartments (between 33m² and 90m²).

Food and Beverages

- Cafeteria – open house: lunch for a reduced price (weekly menu is on the intranet)
- Pub with snacks and drinks (open MO-FR 4.30pm-9.30pm); weekend and public holidays 12pm - 6pm)
- Coffee stations at several stations on the Campus

Campus Childcare Center

In cooperation with the Kidspoint ISTA has a kindergarten on the IST campus. We offer to all employees the possibility to enroll their children in this kindergarten (upon availability).

https://intranet.ist.ac.at/istwiki/index.php/Kindergarten_%22Froschk%C3%B6nig%22

Insurances

Additional Private Health and Accident Insurance

ISTA offers as a benefit an additional private health insurance or an additional accident insurance at discounted rates where ISTA contributes an additional monthly payment of € 25. This social benefit is only eligible for employees who have an employment duration of longer than 18 months.

This benefit is a voluntary benefit provided by the employer, ISTA. This benefit can be revoked unilaterally and at any time by the employer and there is no legal claim for the employee.

The Human Resources Department will inform you about the requirements for the application.

Pension Insurance

As a benefit ISTA offers additional pension insurance for specific employee groups. The Human Resources Department will inform you about the different pension plan options.

IST Shuttle Bus

ISTA provides a shuttle bus (Line 142) for anybody traveling from Vienna (Heiligenstadt) to the campus (and return) to expand the public bus service. ISTA employees can use the bus free of charge with their "ISTA Staff Bus ID Card".

https://intranet.ist.ac.at/istwiki/index.php/IST_SHUTTLE_BUS_&_PUBLIC_TRANSPORTATION

Please see the bus schedule in Section 6.

Language Courses Offered on Campus

ISTA offers the following language courses on campus:

German Courses: https://wiki.ist.ac.at/index.php/German_Course

English Courses: https://wiki.ist.ac.at/index.php/English_Course

Occupational Physician

Based on the Austrian worker protection law, ISTA has appointed an occupational physician (general doctor) for our employees.

The doctor is present on campus once in a week in the Medical Care Room (Administration Building, ground floor, room 014):

https://wiki.ist.ac.at/index.php/Occupational_Physician

https://wiki.ist.ac.at/index.php/EHS#HEALTH

Among other helpful things you can find here a list of recommended MEDICAL SPECIALISTS as well as COUNSELING SERVICES HOTLINES for crisis support!

Pharmacy Discounts

As an ISTA employee you can get discounted prices at the following pharmacies:

https://wiki.ist.ac.at/index.php/Social_benefits

"Die Kletterei"

At Kletterzentrum Klosterneuburg; In der Au 1 (at Happyland), 3400 Klosterneuburg

10% discount on all season tickets (yearly tickets, half year tickets, monthly tickets) or 10 daily tickets at a price of € 100,- (instead of € 125,-) or 20 daily tickets at a price of € 200,- (instead of € 250,-), etc.

Our contact person at "Die Kletterei" is Stefan Havel (stefan.havel@diekletterei.at or +43 664 45 51 991). Everyone can contact him directly, as he also speaks English, either per e-mail or phone.

Please bring your ISTA ID - Card with you.

https://intranet.ist.ac.at/istwiki/index.php/Special_conditions_for_IST-employees

Sport and Leisure

Here are just a few examples of activities on the ISTA Campus.

- Tennis court
  - (please contact the Campus Service office to check time, get the key and borrow the equipment)
  - https://intranet.ist.ac.at/istwiki/index.php/TENNIS_ON_CAMPUS
- Soccer and volleyball field
  - https://intranet.ist.ac.at/istwiki/index.php/SPORTS_GROUND_ON_CAMPUS_(soccer_field,_volleyball_field)
- Table-tennis, table-soccer and pool in the Central Building
- Gym on the 4th floor of the Central Building with changing facilities and shower (incl. free towels)
  - https://intranet.ist.ac.at/istwiki/index.php/Fitness_center_on_campus_%26_sports_equipment_to_borrow
- Several Institute events: BBQ, retreat, open campus day, winter bash
- Social events: game and film nights in the cafeteria/pub, common excursions etc. (to be informed about social events, please send an e-mail to: social-events-join@lists.ist.ac.at)
- Hairdresser
  - https://intranet.ist.ac.at/istwiki/index.php/Hairdresser_on_Campus
- Choir Every Thursday at 6:00pm in the Lecture Hall, Central Buidling (contact: Lenka Matejovicova via mailto: choir@lists.ist.ac.at)
- Massage therapist
  - https://intranet.ist.ac.at/istwiki/index.php/MASSAGE_ON_CAMPUS

For more detailed information please see: https://intranet.ist.ac.at/istwiki/index.php/Campus_Services

3. G. Policies and Guidelines (Links)

Rules for Professors

https://wiki.ist.ac.at/images/a/a5/Rules_for_Professors_of_IST_Austria.pdf

Rules for Postdocs

https://wiki.ist.ac.at/index.php/File:Rules_for_Employees_of_IST_Austria.pdf

Rules for PhD Students

https://wiki.ist.ac.at/index.php/File:Rules_for_Employees_of_IST_Austria.pdf

and/or for academic information please consult the Graduate School Handbook

https://phd.pages.ist.ac.at/Rules-of-the-Graduate-School

https://phd.pages.ist.ac.at/student-resources

Rules for Staff Scientists and Scientific Interns

Chapter 10: staff Scientists (page 15) Chapter 11: Scientific Interns (page 13)

https://wiki.ist.ac.at/index.php/File:Rules_for_Employees_of_IST_Austria.pdf

Rules for Employees

https://wiki.ist.ac.at/index.php/File:Rules_for_Employees_of_IST_Austria.pdf

Rules for Visiting Scientists

Chapter 11. Scientific Visitors (page 16)

https://wiki.ist.ac.at/index.php/File:Rules_for_Employees_of_IST_Austria.pdf

Financial Guidelines

https://wiki.ist.ac.at/index.php/Finance#Guidelines

General Safety Guidelines

https://wiki.ist.ac.at/index.php/File:Safety_information_newcomers.pdf

Internal Human Resources Guidelines

https://wiki.ist.ac.at/index.php/Rules_and_Guidelines

Electronic Time Management

https://wiki.ist.ac.at/index.php/File:Web_Employee-Manual_English.pdf

Laboratory Safety Guidelines

https://wiki.ist.ac.at/index.php/File:Laboratory_Guideline_for_non-laboratory_staff.pdf

Gender & Diversity, Sexual Harassment

https://intranet.ist.ac.at/istwiki/index.php/Discrimination,_Harassment_and_Scientific_Issues:_Support_and_Contact_Persons

https://intranet.ist.ac.at/istwiki/index.php/Gender_and_Diversity

Maternity/Paternity Guidelines for Scientists

https://wiki.ist.ac.at/images/b/b2/IST_Parent_Guide_for_scientists.pdf

Campus Rules

https://ist.ac.at/fileadmin/user_upload/pdfs/Rules/IST_Austria_CampusRules_en_201311.pdf

Campus Traffic and Parking Regulations

https://ist.ac.at/fileadmin/user_upload/pdfs/Rules/IST_Austria_ParkingRules_en_201311.pdf

Anti-Corruption Guideline

https://intranet.ist.ac.at/istwiki/images/7/70/Anti_Corruption_Guideline_Dec_2013.pdf

Guidelines for Good Scientific Practice

https://wiki.ist.ac.at/images/d/d9/IAS-AA04_Guidelines_OeAWI_IST.pdf

Section 4: CAMPUS LIFE at ISTA

The campus of ISTA is located in Klosterneuburg, a historical town to the northwest of Vienna. The campus lies in the beautiful landscape of the Vienna Woods, but only 19 km away from the center of the Austrian capital.

The campus has tremendous potential, consisting of large green spaces (179,000 m²) and an additional area of 75,000 m² for a technology park. The Bertalanffy Foundation Building and the lecture hall blend in with the old pavilion-like edifices from the late 19th century, which were efficiently adapted for the needs of a first class research institute. Other facilities include apartments, a guest house, a restaurant, a kindergarten, a soccer field, a tennis court, and a museum (house of artists and art/brut center gugging).

4. A. Food

Cafeteria

Our new cafeteria on campus has been opened officially since May 2, 2016. The new cafeteria is operated by SV (Österreich) GmbH and offers freshly cooked food at lunch time also with a focus on ethnic food that should reflect the international diversity on campus. You can either pay cash or you can activate your access card, upload money on it and pay with this card. Please find more information on the new cafeteria and the card procedure here:

https://intranet.ist.ac.at/istwiki/index.php/Cafeteria

Opening days and times of the cafeteria

OPENING DAYS: Monday till Friday (except public holidays)

OPENING HOURS OF THE BUILDING: 8am until 7pm; From 3pm until 7pm only with access control

BREAKFAST BUFFET: 8am until 10.30am

LUNCH BUFFET: 11.30am until 2pm

Menu weekly

https://menu.app.ist.ac.at/weekly_menu

Pub

The pub is the ideal place to get together with colleagues, serving coffee, beer, juices, snacks and sweets in a laid-back atmosphere.

Opening hours:

Monday to Friday: 2pm – 10pm

Weekends and public holidays: 12pm - 6pm

4. B. Sports

Gym/Fitness Centre

The gym is located in Central Building east (building no. 1 on the orientation map) on the 4th floor, beneath the roof. You can access the Gym with your access card only. In addition to several training machines, the Gym has two separate bathrooms with a shower and a toilet. It also offers lockers, a water cooler, towels free of charge, disinfection for the surface of the training machines and a music station with an iPod, iPhone, USB and AUX IN connection, which is mounted at the wall next to the kitchenette.

Outdoor Activities

ISTA features a busy campus life. People get together on a regular basis and engage in social activities, ranging from soccer, volleyball, lacrosse and skiing to board game nights and dancing, language, and yoga courses.

4. C. Housing

Apartments

We offer apartments of different sizes. The smaller ones have a combined living and sleeping room, kitchen and bathroom with toilet. The bigger ones have a living room, sleeping room and study room. Please note that we only let the big apartments (65m² and 90m²) to families with children.

The apartments do not include inventory like dishes, towels and bed linen. Furthermore it is not possible to bring your own furniture. There is a washing machine in the basement, which can be used by all apartment house residents. Electricity and heating costs are included in the rental costs. Find a supermarket and the bus station for the bus taking you to Vienna within walking distance from the apartments.

https://intranet.ist.ac.at/istwiki/index.php/Apartments_on_campus

Guesthouse

Our guest rooms are furnished like very comfortable hotel rooms. On the 2nd floor there is a kitchen with a dining area, and on the 3rd floor, there is a laundry room with a washing machine and a drier. We also provide a recreation area with a lounge.

The Guesthouse offers 38 rooms and is located on the second and third floor of the Central Building. The rooms are categorized as 24 single rooms (15 - 20m²), 6 single rooms for people with disabilities (20 - 23m²), 4 double rooms (20 – 25m²) and 4 junior suites (35 – 40m²). All rooms are equipped with a wardrobe, little refrigerator, bed, desk, cupboard, bathroom, air condition/heating, satellite television and Wi-Fi. On the second floor of the Guesthouse you will also find a kitchen equipped with all necessary cooking equipment, plates and cutlery, a refrigerator and freezer, microwave and an oven. All guests living in the guesthouse can use this kitchen free of charge.

https://intranet.ist.ac.at/istwiki/index.php/Guesthouse

Section 5: MOVING to Austria

5. A. Residing in Austria / Authorities

Visa – VISA C, VISA C "ERWERB" (Schengen-Visa) and Visa D

Validity

Visa C entitles you to entry and residence in Austria for the maximum period of 90 days within a period of 180 days.

Visa C "ERWERB" entitles you in addition to work (employment contract) in Austria for a maximum period of 90 days within a period of 180 days.

In both cases you should apply for a multiple-entry visa (no. 24 on the visa application form), which entitles you to enter any Schengen country within its validity.

Visa D "**ERWERB**" entitles you to entry, residence and employment in Austria for a time period of 91 days up to 180 days. You should apply for a multiple-entry visa (no. 24 on the visa application form), which entitles you to enter and reside in any other Schengen country for the maximum period of 90 days within its validity. When traveling to countries outside the Schengen area you have to check visa requirements.

Required Documents for Visa C and D

Visa C

- **visa application form**
- **passport** (valid for at least 3 months after the expiry of the visa and with at least 2 empty pages)
- **1 ICAO-fitting passport photo**
- **original invitation letter** (from ISTA)
- proof of travel/medical health insurance (provided by ISTA)
- **proof of complete round-trip ticket(s)** or confirmed itinerary showing exact dates of travel
- *may be required: proof of sufficient funds for staying Austria (personal bank statements of at least 3 months)*

Visa D

- **Visa application form**
- **Passport** *(valid for at least 3 months after the expiry of the visa and with at least 2 empty pages)*
- **1 ICAO-fitting passport photo**
- **Hosting agreement** (provided by ISTA)
- May be required: proof of travel/medical health insurance (provided by ISTA)

Austrian Representation Authority

You have to apply for visa C, Visa C "ERWERB" and Visa D "ERWERB" in person at the responsible Austrian representative authority (Austrian embassy, consulate-general or consulate) in your country of residence before traveling to Austria. ISTA will provide you with this information.

When applying, explicitly inform the Austrian representative authority that you are a researcher and, that you apply for Visa D "ERWERB" now - it is important, because different rules apply for researches!

Processing Time

It is recommended to apply at least 3-4 weeks in advance.

(In case of submitting your application to a consulate-general or consulate, which is not entitled to issue visas, it is recommended to apply at least 6 weeks in advance.)

Schengen countries are the following countries:

→ Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and Switzerland.

For more detailed information please contact the Human Resources department.

Registration Form

The Registration Form „Meldezettel" is required within 3 days of arrival

Required documents:

- Application form
- Passport

Competent authority:

If staying in Klosterneuburg:

Rathaus Klosterneuburg
Address: Rathausplatz 26, 3400 Klosterneuburg
1st floor – room no 116 (Meldewesen)
Monday to Friday 8 am - 12 pm
Tuesday 1.30 pm - 6 pm

If staying in Vienna:

Authority depending on district

Fee:

The registration is free of charge.

Please note:

- While staying in a campus guestroom for less than 2 months there's no need to complete a registration form (Meldezettel). Instead of the Meldezettel, please take a copy of the guestbook entry sheet with you when applying for the residence permit. When moving into an apartment you have to get registered within 3 days.
- Relocation within Austria: Every time you're moving into a new place within Austria you have to get registered at your new address within 3 days.
- Departure: When leaving the country you have to go to the last authority you got registered with to give notice of departure. Please take your passport with you!

Residence Permit Researcher

The residence permit researcher entitles you to reside and to work in Austria.

Please send a scan of the residence permit card via email to Human Resources: ps@ist.ac.at

Important information if you have a visa and it is your first application: Please apply for the residence permit researcher card as soon as possible! If you have a visa your application does not entitle you to overstay this permitted time and you have to leave Austria if you card is not issued in time (before your visa expires).

Required documents (Please bring with you the original and a copy of all documents!)

- **Application form** (provided by ISTA)
- **Passport**
- **1 Photo** (45 x 35mm, not older than six months)
- **Proof of locally customary accommodation** (e.g. lease contracts, preliminary agreement on tenancy rights or ownership evidence), proof of payment of the rent, operating costs, etc. (*from 01.09.2018 on no proof of locally customary accommodation needed; but: proof of payment of rent, operating costs are still needed)*
- **Hosting agreement** (provided by ISTA) - for an **extension** a new hosting agreement is needed
- **Proof of health insurance** covering all risks (compulsory health insurance: e-card + confirmation of registration "Anmeldung" which you received in the welcome meeting; or equivalent insurance: insurance policy)
- **Employment Contract** (and amendments to the employment contract – if applicable)
- Proof of **income** (esp. payslip, confirmation of salary)
- **Registration form** („Meldezettel") – *in Klosterneuburg copy of guestbook entry sheet is enough*
- **In case of a residence permit application in Vienna:**
- **Self-declaration** from the registry of the **creditor protection association** (e.g. KSV 1870 Information GmbH: https://www.ksv.at/infopass-behoerden), fee: € 30
- Only if a loan exists: proof of loan amount and proof of loan repayment

First application:

- Recent extract from the criminal record of the home country of the applicant
- Birth certificate

Extension:

- former residence permit card

Please note: The following documents need to be legalized (need an apostille or a diplomatic/consular legalization): birth certificate, marriage certificate, partnership document, certificate of divorce, certificate of the dissolution of registered partnerships, death certificate, extract from the criminal record of your home country (certificate of good conduct).

Foreign-language documents need to be translated by a court interpreter and need a certification.

In some cases the authorities asks for additional documents.

Fee: € 160

Validity

The resident permit researcher is valid as long as your hosting agreement or your employment contract is valid but not more than 2 years. Therefore your passport must be valid at least for this time. After the 2 year period you may either apply again for "residence permit researcher" or for "red-white red card plus". Important: After two years legal residence in Austria you can get a residence permit for three years if: Fulfilling module 1 of the integration agreement, e.g. school-leaving certificate which entitles to study plus certificate of equivalence (issued by ENIC NARIC Austria) or university degree.

Travelling

The residence permit of any European Union member state (as well as from Norway, Iceland and Liechtenstein) entitles you to enter other Schengen-countries[2] and to reside in any Schengen-country for the maximum period of 90 days within the period of 6 months. When travelling to countries outside the Schengen area you have to check visa requirements.

Working

A residence permit of another European Union member state does not count as working permit in Austria (exception: valid Austrian working visa).You have to apply and receive the Austrian residence permit **before** the first day of your employment.

Competent Authorities

Living in Klosterneuburg:

Authority: Bezirkshauptmannschaft Tulln, Außenstelle Klosterneuburg
Address: Leopoldstraße 21, 3400 Klosterneuburg, 2nd floor – room no. 204 and 205
Opening hours: Mo - Fri from 8:00am - 12pm, Tue additionally from 3:00pm - 6:00pm

Living in Vienna:

Authority: MA 35 Fachbereich Einwanderung Referat 1.3 – Erstantragszentrum
Address: Dresdner Straße 93, Block C, 1200 Wien
Opening hours: Mo, Tue, Thu and Fri 8:00am - 12:00pm, Thu additional 3:30pm - 5:30pm

[2] All European Union members, except Great Britain, Bulgaria, Romania and Cyprus. Iceland, Norway and Switzerland are also Schengen-countries.

Red White Red Card PLUS

The red-white-red card plus entitles you to reside in Austria with free access to the labor market. If you´ve had a residence permit researcher for more than two years you can apply for a red white red card PLUS (you can apply for an extension 3 months before the old residence permit expires).

Please send a scan of the residence permit card via email to Human Resources: ps@ist.ac.at

Required Documents (Please bring with you the original and a copy of all documents!)

- **Application form** (provided by ISTA)
- **Passport**
- **Registration form** ("Meldezettel")
- **Photo** (45x35mm, not older than six months)
- If needed: Marriage certificate, partnership document, certificate of divorce, adoption certificate, certificate or proof of the family relationship, certificate of the dissolution of registered partnership, death certificate
- Proof of locally customary **accommodation** (e.g. lease contracts, preliminary agreement on tenancy rights or ownership evidence, (from 01.09.2018 on no proof of locally customary accommodation needed; but: proof of payment of rent, operating costs are still needed))
- Proof of **health insurance** covering all risks (compulsory health insurance: e-card + confirmation of registration "Anmeldung" which you received in the welcome meeting or equivalent insurance policy)
- **Employment contract**
- proof of **income** (payslip, employment contract, confirmation of salary)
- former **residence permit card**
- **In case of an application in Vienna:**
- **Self-declaration** from the registry of the **creditor protection association** (e.g. KSV 1870 Information GmbH: https://www.ksv.at/infopass-behoerden), fee: 30 €
  Only if a loan exists: proof of loan amount and proof of loan repayment

Please note: The following documents need to be legalized (need an apostille or a diplomatic/consular legalization): marriage certificate, partnership document, certificate of divorce, certificate of the dissolution of registered partnerships, death certificate, extract from the criminal record of your home country (certificate of good conduct).

Foreign-language documents need to be translated by a court interpreter and need a certification.

In some cases the authorities asks for additional documents.

Fee € 160

Validity

The red white red card plus is normally valid for 1 year. After 2 years residence permit researcher and fulfilling module 1 of the Integration Agreement (e.g. school-leaving certificate which entitles to study and university degree plus certificates of equivalence for both (issued by ENIC NARIC Austria)) you can

apply for a 3 year red white red card plus. Therefore, your passport must be valid for at least that period of time.

Travelling

The red white red card plus entitles you to enter any other Schengen-country[3] and to reside in any Schengen-country for the maximum period of 90 days within the period of 6 months. When travelling to countries outside the Schengen area you have to check visa requirements.

Working

The red white red card plus gives you free access to the Austrian labor market. You have to apply and receive the Austrian residence permit before the first day of your employment (exception: valid working visa).

Competent Authorities

Living in Klosterneuburg:

Authority: Bezirkshauptmannschaft Tulln, Außenstelle Klosterneuburg
Address: Leopoldstraße 21, 3400 Klosterneuburg, 2nd floor – room no 204 and 205
Opening hours: Mo - Fri 8:00am - 12pm, Tue additional 3:00pm - 6:00pm

Living in Vienna:

"MA 35 Fachbereich Einwanderung – Außenstellen" (depending on residential district):
MA 35 Untergeordnete Stellen / Außenstellen

https://www.wien.gv.at/advuew/internet/AdvPrSrv.asp?Layout=stelle&Type=K&stellecd=2014121011582596&STELLE=Y

[3] All European Union members, except Great Britain, Bulgaria, Romania and Cyprus. Iceland, Norway and Switzerland are also Schengen-countries.

Red White Red Card PLUS for family members

The red white red card plus entitles **spouses and civil partners of holder of the residence permit researcher** to reside in Austria with access to the whole Austrian labor market. Please apply for your residence permit after your arrival in Austria as soon as possible.

Required documents (Please bring with you a copy of all your documents!)

- **Application form** (provided by ISTA)
- **Passport**
- **Registration form** ("Meldezettel")
- **Birth certificate**
- **1 Photo** (45x35mm, not older than six months)
- **Proof of locally customary accommodation** (e.g. lease contracts, preliminary agreement on tenancy rights or ownership evidence)
- **proof of health insurance** covering all risks (compulsory health insurance or equivalent insurance policy)
- **proof of adequate means of subsistence** (payslip, employment contract)

If the documents are not in German or English they have to be translated.

Fee

€ 160

Validity

The red white red card plus for spouses is valid as long as the residence permit researcher of the partner but no longer than 2 years. You may be required **to provide proof of German within the 2 years.** Therefore your passport must be valid for at least this time. After 2 years red white red card plus, you can apply for a **period of 3 years**. At this point you´ll need a certified A2/or higher German language certificate.

Travelling

The red white red card plus entitles you to enter any other Schengen-country[4] and to reside in any Schengen-country for the maximum period of 90 days within the period of 6 months. When travelling to countries outside the Schengen area you have to check visa requirements.

Working

The red white red card plus gives you free access to the Austrian labor market. You have to apply and receive the Austrian residence permit before the first day of your employment (exception: valid working visa).

[4] All European Union members, except Great Britain, Bulgaria, Romania and Cyprus. Iceland, Norway and Switzerland are also Schengen-countries.

Competent authorities

Living in Klosterneuburg:

Bezirkshauptmannschaft Tulln, Außenstelle Klosterneuburg

Address:
Leopoldstraße 21
3400 Klosterneuburg, 2nd floor – room no. 204 and 205

Opening hours:
Mo - Fri from 8am - 12pm, Tue additionally from 3pm - 6pm

Living in Vienna:

Magistratsabteilung (MA) 35

If your spouse has a residence permit researcher:
"MA 35 Fachbereich Einwanderung Referat 1.3 – Erstantragszentrum"

Address:
Dresdner Straße 93, Block C, 1200 Wien

Opening hours:
Mo, Tue, Thu and Fri from 8am - 12pm, Thu additionally from 3.30pm – 5.30pm

Proof of Residence

The residence proof for EEA citizens („Anmeldebescheinigung EWR Bürger“) is required for a residence in Austria for longer than 3 months. You have to apply in person at the authority.

Documents:

- Application form
- Passport
- Registration („Meldezettel“) or copy of guestbook entry sheet
- Employment contract
- Proof of social security:
  - either copy of Austrian Social Security registration sheet (you´ll receive this together with your employment contract)
  - or “Versicherungsdatenauszug” (call ÖGK: 05-08996100, you will receive it by mail)

NOTE: Please bring a copy of all documents with you!

Competent Authority:

If staying in Klosterneuburg:

Bezirkshauptmannschaft Tulln, Außenstelle Klosterneuburg

Address: Leopoldstraße 21, 3400 Klosterneuburg 2nd floor – room no 204 and 205 (Aufenthaltsrecht)

Monday to Friday from 8:00am to 12pm Tuesday additionally from 3:00pm to 6:00pm

If staying in Vienna:

Magistratsabteilung 35 – Fachbereich “Eiwnanderung – EWR”

Address: Arndtstraße 67, Stiege 1, 1st floor, 1120 Vienna Phone: +43 (0)1 4000 35338

Monday, Tuesday, Thursday and Friday 8:00am to 12:00pm
Thursday additionally 3:30pm to 5:30pm

NOTE:

- You have to apply in person and family members who will stay longer than 3 months in Austria need to file an application as well. Children below 14 years don´t need to attend personally.
- The deadline for the application is 4 months after your arrival in Austria.

Fee: € 15 (additional fees possible)

You will need the EU residence proof for the application for family allowance (“Familienbeihilfe”) and also if you ever apply for unemployment benefits!

Banks

Bank Account, ATM Card, Credit Card

Austria's valid currency is the Euro (€). For the current exchange rate visit the currency converter at http://www.oanda.com/convert/classic?lang=en. Major credit cards are accepted in most places as well as checks, although these are not really in use anymore. In order to facilitate cashless transactions, it is necessary to open a bank account in Austria. You are generally required to present a valid identification with photo (passport, personal ID or a driver's license) and your registration form ("Meldezettel") in order to open an account. In Austria it is usual to do nearly all banking transactions via internet.

Established banks in Austria are Erste Bank, Bank Austria, Raiffeisen, BAWAG, PSK Bank and others. The closest bank to the Campus is the Raiffeisen bank, directly located on the road B14 to Vienna (app. 1km) in Kierling.

An easy way to get cash is the automatic teller machine (ATM), it´s called "Bankomat" in Austria. To use a "Bankomat" you only need a cash card from your bank and a PIN code.

One ATM is located in the Central Building at the campus of ISTA.

Bank Institutes

Hypo Landesbank

is located in the city center of Klosterneuburg

- Address and phone: Niedermarkt 9- 11, 3400 Klosterneuburg, 02243 - 30698
- Opening Hours: Mon, Tue, Wed 8am – 12.30pm, Thu: 8am - 12.30 pm and 1.30pm 5.30pm, Fri: 8am – 12.30pm and 1.30 pm – 3pm
- Online Banking: https://www.banking.co.at/appl/ebp/login.html?resource=029
- Provides an ATM on our campus (Central building)

Required Documents:

- to open a bank account: passport and salary statement
- to close a bank account: signed letter and bank card has to be brought back to bank

Bank Austria

is located in the city center of Klosterneuburg.

- Address and phone: Niedermarkt 21, 3400 Klosterneuburg, +43 (*0)5 0505 31550*
- Opening hours: Mon, Tue, Wed, Fri 8am – 12am and 1pm -3pm, Thu 8am – 12.30pm and 1pm – 5.30pm
- Online banking: https://online.bankaustria.at/bach/en/login/index.html

Required Documents:

- to open a bank account: passport, confirmation of employment or salary statement
- to close a bank account: signed letter and bank card has to be brought back to bank

Easybank

is an internet bank which is linked to the BAWAG

- **To open an account**, please call the helpdesk: +43 (0)5 70 05-500 (Mon-Fri 7am-10pm, Sat 8am-1pm)
- Once you have an account you can use the English online banking surface for your bank affairs: http://www.easybank.at

Required Documents:

- to open a bank account: passport copy (scan), confirmation of employment
- to close a bank account: delete the account online

Erste Bank Klosterneuburg

is a bank linked to the "Austrian Sparkassen"

- Address and phone: Niedermarkt 24, 3400 Klosterneuburg, 05 0100 - 23100
- Opening hours: Mon, Tue, Wed, Fri 8am – 12-30pm and 1.30pm – 3pm, Thu 8am – 12.30pm and 1.30pm – 5.30pm
- Online banking: https://www.sparkasse.at/sgruppe/netbanking (English surface possible!)

Required Documents:

- to open a bank account: passport, confirmation of employment, salary statement and if already existing the "Meldezettel" (Registration form)
- to close a bank account: card has to be brought back to bank

Raiffeisenbank Kierling

is located closest to ISTA (about 1.2 km down the main street towards Kierling).

- Address and phone: Hauptstrasse 155, 3400 Klosterneuburg, +43 (*0)2243 - 37677 1310*
- Opening hours: Mon - Fri 8am – 12am, Mon 1pm – 3pm, Thu 1pm – 5.30pm, Fri 1pm - 3pm
- Contact Person: Mr. Philip Ulrich
- Online banking: https://banking.raiffeisen.at (however the start-up information is available in German only, once registered there is an English surface)

Required Documents:

- to open a bank account: passport and salary statement
- to close a bank account: signed letter

Note: The Austrian banking system might be different from what you are used to. Check payments are not a common practice in Austria, instead your ATM card can be used almost everywhere. Please be aware that in Austria there are credit cards and the ATM cards (*Bankomat Karte*) but no debit cards. Online banking has an additional security feature to verify online transactions called TAN numbers. These TAN numbers are provided by your bank (either in paper form or via text message to your mobile phone) and are required for confirming every online transaction. Please refer to your bank for further clarification on the banking system in Austria.

5. B. Living in Austria

Relocation

a. Companies

ISTA recommends based on past experiences the following relocation companies. If you need any support concerning relocation, please contact the Human Resources office.

Company Name	Phone	E-Mail	Address	Homepage
International				
E. Fall International Movers Austria	0043 (0)1 - 865 95 33	office@e-fall.com	Hans-Fronius-Straße 13 2380 Perchtoldsdorf	http://www.e-fall.com/
Kühner & Sohn Relocation Solutions	0043 (0)2262 -745 44	m.jogl@kuehner.co.at	Girakstraße 15 2100 Korneuburg	http://www.kuehner.co.at/
Spedition Lang GmbH Worldwide moving	0043 (0)1 - 512 52 01 0	info@lang-moving.at	Obdachgasse 4 1220 Wien	http://www.lang-moving.at/
SOBOLAK International Moving • Relocation	0043 (0)2262 - 691 0	office@sobolak.com	Stockerauer Straße 161 2100 Leobendorf	http://www.sobolak.com/
Schliefke Umzugslogistik GmbH Relocation & Logistics	0049 (0)30 - 331 20 12	info@schliefke-dms.de	Gartenfelder Straße 28 D - 13599 Berlin	http://www.schliefke-dms.de/
Flott GmbH Ihr Partner für Transport	0041 (0)43 - 299 94 24	info@flottumzug.ch	Glattalstrasse 125 CH - 8052 Zurich	http://www.flottumzug.ch/
Within Austria				
easyumzug.at übersiedeln leicht gemacht...	0043 (0)1 - 22 88 7 88	office@easyumzug.at	Mariahilferstrasse 211/1 1150 Wien	http://easyumzug.at/

b. Relocation Grant and Dual Career Grant:

If one takes up a research position then costs related to relocation from abroad can be supported by the Austrian funding agency FFG (up to € 2,000). If the partner holds at least a master's degree s/he can also receive money for integration costs (German language course etc.).

Important: One must apply for these grants **BEFORE** coming to Austria and **BEFORE** the employment start date. See https://www.ffg.at/career-grants/tender for specific information and guidelines.

c. Cars and Driving License

Cars

If you possess a car and move to Austria you are obliged by law to register your car with the Austrian authorities within a month.

In order to pay the **NOVA** tax for a car that was previously registered in another country you have to send the following documents to the responsible tax office ("Finanzamt"):

- **Registration form ("Meldezettel")**
- **Passport**
- **Statement about the real value of the car** (eg "Auszug aus der Eurotaxbewertung", if one is a member of ÖAMTC and the car is older than 10 years then ÖAMTC "technische Beratung" provides suitable evaluation free of charge, even by email)
- **"Datenblattauszug"/ "Typenschein"** that must be obtained from Austrian car importer (call a place where they sell new cars of your brand, and they will obtain the document for you) - *this document may cost approximately € 180*
- **Current registration certificate of the car**
- **Certificate of technical inspection** ("Pickerl") which is done by many car repair stations and costs about € 45.

There is no need to pre-calculate the NOVA tax, the officer at Finanzamt will do this for free. It is not necessary to fill out any forms either, they enter all the information into the computer directly.

EU Driving License

If you are in possession of a driving license from an EEA (European Economic Area) state, these are all states within the European Union plus Liechtenstein, Norway and Iceland; it is fully valid in Austria if it hasn't expired.

Driving licenses from all other states are only valid for 6 months under special conditions (for detailed information please see the links below). After 6 months the driving license is no longer valid in Austria and therefore has to be rewritten at an Austrian authority within a 6 month deadline. The responsible authority in Vienna is the "Verkehrsamt" and in other areas with federal police: the Federal Police Headquarters ("Bundespolizeidirektion"), in areas without federal police: the district administration ("Bezirkshauptmannschaft").

For more detailed information for Driving Licenses from EEA/EWR countries please click here: https://intranet.ist.ac.at/istwiki/images/f/f2/Info_Driver%27s_License_EWR.pdf

For more detailed information for Driving Licenses from Non-EEA/EWR countries please click here: https://intranet.ist.ac.at/istwiki/images/a/ac/Info_Driver%27s_License_Non-EWR.pdf

d. Pets

Pets must have an EU household pet passport.

More details are available at: http://bmg.gv.at/home/EN/Topics/Information_for_Travellers/Intra_Community_movement_of_other_pets_than_dogs_cats_or_ferrets

Certain taxes and duties for animals, like dog license fee, have to be paid in almost all municipalities. The amount of the duty depends on your place of residence. Details can be obtained from the responsible municipality office (Gemeindeamt) or municipal district administration (Magistratisches Bezirksamt) (in cities).

More details are available at: https://www.help.gv.at/Portal.Node/hlpd/public/content/133/Seite.1330000.html

To find a veterinarian click here: http://www.tierarzt.at

Accommodation

a. Living on Campus

Please see the detailed information regarding the Housing options on Campus described in Section 4.

b. Vienna

Vienna is divided into 23 districts, each district has a name and a number. You can tell by the postal code in which district an address is situated in. The two middle digits give you the number of the district. For example an address with the postal code 1**03**0 is located in the 3rd district. Each street sign in Vienna also displays the number of the district where it is situated before the street name.

District names:

I	Innere Stadt	IX	Alsergrund	XVII	Hernals
II	Leopoldstadt	X	Favoriten	XVIII	Währing
III	Landstraße	XI	Simmering	XIX	Döbling
IV	Wieden	XII	Meidling	XX	Brigittenau
V	Margareten	XIII	Hietzing	XXI	Floridsdorf
VI	Mariahilf	XIV	Penzing	XXII	Donaustadt
VII	Neubau	XV	Rudolfsheim-Fünfhaus	XXIII	Liesing
VIII	Josefstadt	XVI	Ottakring		

c. Klosterneuburg

Klosterneuburg has a population of about 25,800 people and is located adjacent to the northern city limits of Vienna. ISTA is only 5 km away of the center of Klosterneuburg and 19 km of the city center of Vienna though surrounded by the beautiful Vienna Woods. The city of Klosterneuburg is known for its high standard of living. The location between the Danube and the rolling hills of the Vienna Woods with its vineyards, pastures and forests provides an excellent environment. The city offers all educational, medical, social and cultural services.

d. Living – Buy or Rent?

In Austria both is usual – to buy or to rent a flat or a house. In the city center of Vienna (district 1 to 9) the only accommodation possibilities are flats. The city center of Vienna is urban and it provides good infrastructure and public transportation possibilities. Vienna has got many districts which are quite rural and there are enough houses to be let or bought (districts 10 to 23).

If you would rather live in a more rural area and not in a big city like Vienna, the small villages between Klosterneuburg and Tulln are also very suitable. Tulln is a small town about 17 km away by car. There is also an offer of educational, medical, social and cultural services.

You can buy or rent houses or flats either furnished or unfurnished. Furnished houses are fairly difficult to find on the market.

e. Real Estates on the Internet and in Newspapers (useful links)

As in every country, there are certain procedures for finding a flat or house and closing the sale. A "For Sale" sign in front of the house is not a common way of offering property in Austria.

To get real estate offers you can choose different ways:

Most of the apartments in Austria are not rented privately, which means you should expect to pay an estate agent's fee. Real estate agencies normally charge you a "**commission**" or "**provision**" that has to be paid after signing the contract. The commission for a rental contract would normally be 2 months' rent (gross – including operating costs) and the commission for a purchase contract will be a defined percentage of the purchase price (normally 3%). An agent will help you to find a suitable apartment.

If you do not want to pay a commission/provision to an agent you have the alternative option of renting from a property owner directly.

For the purchase you need to contact a solicitor. The solicitor is legally bound to act as an impartial middleman between buyer and seller. He or she registers the change of ownership with the municipal government and enters the property in the land register.

Another possibility is to find real estate offers in daily newspapers (e.g. Kurier on Saturday) or on the internet where you find both, objects offered by real estate agencies and private persons.

Useful Websites

Please visit this website for further information concerning housing in Vienna: http://www.wien.gv.at/english/housing/ (very good introduction to housing laws, rules and procedures)

The IST Wiki site for Renting

https://intranet.ist.ac.at/istwiki/index.php/Apartments_and_rooms_for_rent

The search engine of real estate search engines

http://www.immosuchmaschine.at/

Housing websites

http://www.wohnnet.at/

http://www.derstandard.at/immobilien

https://immo.kurier.at/

http://www.willhaben.at/iad/immobilien

http://www.immobilien.net

http://www.immodirekt.at

http://www.wg-gesucht.de (flat shares)

https://www.jobwohnen.at/?id=172 (is only info about housing , no ads)

ISTA may support you with offers in the near surroundings of the Institute. Please contact the Human Resources office for relevant information.

f. Contact Person Real Estate Agency (2021)

Company Name	Phone	Homepage	E-Mail	Address	Additional information
EHL Immobilien	+43 1 512 76 90 408	http://www.ehl.at/en/suche	office@ehl.at	Prinz-Eugen-Strasse 8-10, 1040 Vienna	big real estate agency in Vienna
Römer Real	+43 650 294 1 294	www.roemer-real.at (Website in German)	office@roemer-real.at	Vienna: Hackenbergweg 14, 1190 Vienna Klosterneuburg: Buchkammerl 3, 3400 Klosterneuburg	small team of real estate agents specialized on the 19th district in Vienna and Klosterneuburg
Die Immobilien GmbH contact person: Mrs. Doris Dulmovits	+43 2243 20618	www.mcimmobilien.at (Website in German) based in Klosterneuburg	office@immo-klosterneuburg.at doris.dulmovits@mcimmobilien.at	Wienerstrasse 134, 3400 Klosterneuburg	specialized in real estate in Klosterneuburg and in the 19th district in Vienna
Hoch REAL Hochleitner Immobilien OG contact person: Mrs. S. Hochleitner	+43 2243 22992	www.hochreal.at (Website in German)	office@hochreal.at	Ortnergasse 18, 3400 Klosterneuburg	Klosterneuburg based real estate agent
homefinding.at	+43 1 890 26 71	www.homefinding.at	office@homefinding.at	Wattmanngasse 31/2, 1130 Vienna	Special services for business people and English speakers (e.g. all forms in English), but higher prices, please find the contact form online
JP Immobilien Immobilienmakler & Bauträger in Wien	+43 1 596 60 20	https://jpi.at	office@jpi.at	Lehargasse 9/10, 1060 Vienna	Big real estate agency with a focus on Vienna. They have a 24h real estate hot-line and offer serviced apartments.
Raiffeisen Immobilien	+43 517 517	www.riv.at (Website in German)	office@riv.at	Friedrich-Wilhelm-Raiffeisen-Platz 1 1020 Vienna	Real estate offers from all of Austria from one of the biggest banks in the country.
S Real	+43 5 0100 - 26200	www.sreal.at/en	please use the contact form on the website	Landstrasser Hauptstrasse 60, 1030 Vienna	Real estate offers from all of Austria from one of the biggest banks in the country.

g. Apartments for Sale / Price per sqm in €

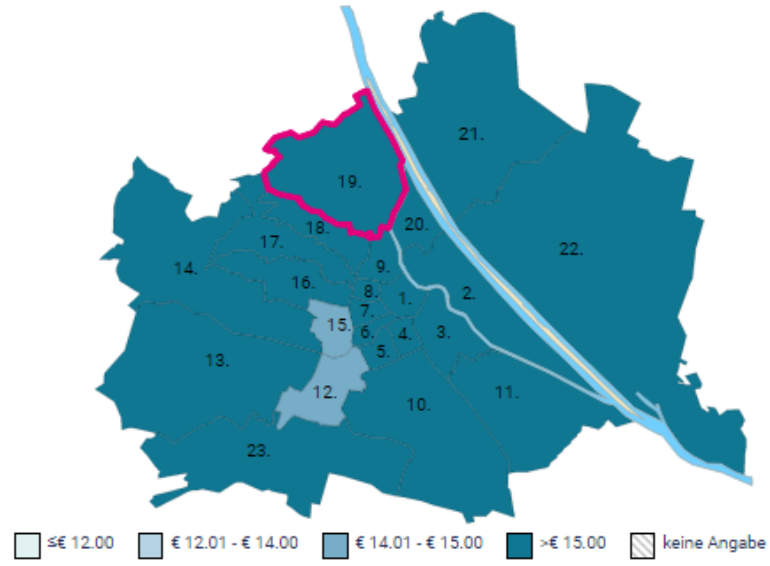
Purchasing prices and rents may vary, depending on size, location, the standard of the building, the available facilities and others.

In general, the districts in the city center (1st, 6th, 7th, 8th and 9th) and the 13th, 18th and 19th districts are more expensive than the others. There are no districts where it is not advised to live.

Klosterneuburg is a rather expensive area to live. In general the market prices are not as high as in the most expensive areas of Vienna.

Overview rental prices[5]:

Wohnungen Miete (Durchschnittspreise per m² in €)

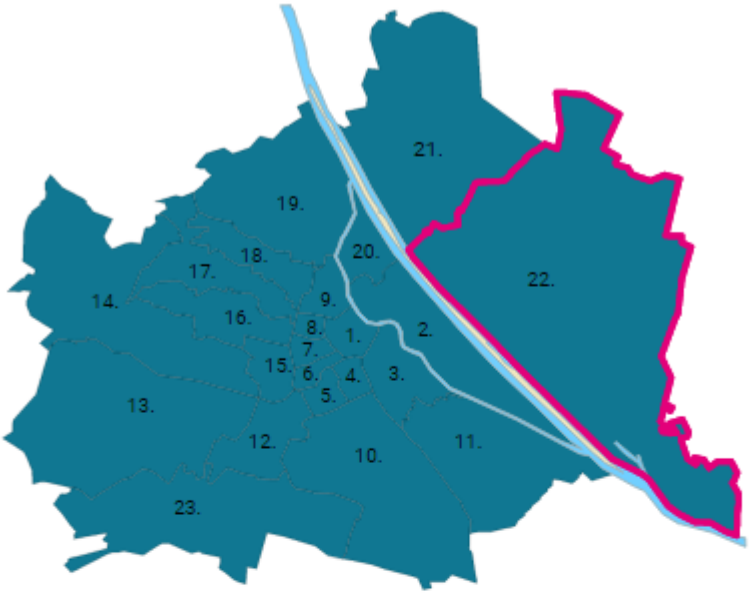


Bezirk	≤50m²	51-80m²	81-129m²	>130m²	Ø/m²	Td.
1., Innere Stadt	€ 40,87	€ 21,07	€ 19,39	€ 22,65	€ 22,78	▲
2., Leopoldstadt	€ 20,24	€ 21,18	€ 15,25	€ 15,61	€ 20,47	▲
3., Landstraße	€ 20,05	€ 18,30	€ 18,37	€ 15,80	€ 18,82	▲
4., Wieden	€ 17,65	€ 15,65	€ 14,86	€ 19,38	€ 17,06	▲
5., Margareten	€ 17,28	€ 15,73	€ 14,04	€ 16,16	€ 15,90	▲
6., Mariahilf	€ 20,14	€ 15,71	€ 15,36	€ 19,59	€ 17,48	▶
7., Neubau	€ 17,36	€ 16,66	€ 16,94	€ 15,69	€ 16,95	▲
8., Josefstadt	€ 18,92	€ 15,26	€ 19,53	€ 16,44	€ 17,42	▲
9., Alsergrund	€ 19,23	€ 15,60	€ 14,94	€ 18,93	€ 16,96	▶
10., Favoriten	€ 17,46	€ 13,53	€ 14,69	k.A.	€ 15,43	▼
11., Simmering	€ 16,51	€ 15,47	€ 13,57	k.A.	€ 15,69	▼
12., Meidling	€ 16,90	€ 14,48	€ 14,53	€ 12,24	€ 14,73	▶
13., Hietzing	€ 17,35	€ 15,06	€ 15,93	€ 16,35	€ 15,62	▲
14., Penzing	€ 18,26	€ 14,39	€ 13,72	€ 13,27	€ 16,39	▲
15., Rudolfsheim-Fünfhaus	€ 15,16	€ 14,20	€ 14,32	€ 14,98	€ 14,54	▼
16., Ottakring	€ 18,89	€ 15,44	€ 12,42	€ 12,85	€ 16,52	▲
17., Hernals	€ 15,74	€ 15,22	€ 15,16	€ 14,25	€ 15,32	▲
18., Währing	€ 17,86	€ 15,05	€ 16,23	€ 15,40	€ 15,90	▶
19., Döbling	€ 17,83	€ 17,10	€ 16,28	€ 20,18	€ 17,39	▲
20., Brigittenau	€ 18,57	€ 17,18	€ 15,31	k.A.	€ 18,04	▲
21., Floridsdorf	€ 17,96	€ 16,21	€ 14,40	€ 10,85	€ 16,98	▲
22., Donaustadt	€ 17,88	€ 16,00	€ 16,58	€ 17,43	€ 16,78	▶
23., Liesing	€ 18,76	€ 16,10	€ 13,80	k.A.	€ 17,19	▲

[5] Immopreise: December 2022, http://www.immopreise.at/Wien/Wohnung/Miete

Overview sale prices[6]:

Wohnungen Eigentum (Durchschnittspreise per m² in €)



≤€ 3000 | € 3001 - € 4000 | € 4001 - € 5000 | >€ 5000 | keine Angabe

Bezirk	≤50m²	51-80m²	81-129m²	>130m²	Ø/m²	Td.
1., Innere Stadt	€ 19.619	€ 16.016	€ 14.366	€ 24.384	€ 18.644	▼
2., Leopoldstadt	€ 6.113	€ 7.183	€ 7.792	€ 8.982	€ 7.329	▲
3., Landstraße	€ 8.331	€ 7.605	€ 7.876	€ 9.995	€ 8.005	▲
4., Wieden	€ 10.594	€ 10.083	€ 9.749	€ 10.307	€ 10.064	▲
5., Margareten	€ 6.657	€ 6.611	€ 8.486	€ 9.206	€ 7.298	▲
6., Mariahilf	€ 9.736	€ 8.048	€ 8.435	€ 11.103	€ 9.759	▲
7., Neubau	€ 8.244	€ 7.688	€ 9.814	€ 10.474	€ 9.112	▲
8., Josefstadt	€ 8.250	€ 8.808	€ 7.699	€ 11.574	€ 8.278	▼
9., Alsergrund	€ 6.699	€ 7.600	€ 7.857	€ 11.686	€ 7.968	▲
10., Favoriten	€ 6.283	€ 6.033	€ 6.331	€ 4.526	€ 6.100	▲
11., Simmering	€ 5.653	€ 5.461	€ 5.185	k.A.	€ 5.323	▲
12., Meidling	€ 6.438	€ 5.900	€ 5.067	€ 3.564	€ 5.703	▲
13., Hietzing	€ 7.859	€ 7.806	€ 8.741	€ 9.655	€ 8.382	▲
14., Penzing	€ 6.056	€ 6.823	€ 5.542	€ 9.338	€ 6.334	▼
15., Rudolfsheim-Fünfhaus	€ 4.321	€ 6.339	€ 6.841	€ 6.149	€ 5.758	▼
16., Ottakring	€ 4.977	€ 4.988	€ 6.220	€ 5.070	€ 5.084	▼
17., Hernals	€ 3.980	€ 6.922	€ 7.464	€ 8.563	€ 6.404	▼
18., Währing	€ 22.436	€ 7.544	€ 7.652	€ 9.115	€ 7.688	▼
19., Döbling	€ 7.135	€ 8.171	€ 8.865	€ 9.314	€ 8.645	▼
20., Brigittenau	€ 5.380	€ 4.514	€ 5.404	€ 6.472	€ 5.042	▼
21., Floridsdorf	€ 7.049	€ 5.894	€ 6.193	€ 7.443	€ 6.466	▲
22., Donaustadt	€ 7.020	€ 6.276	€ 6.742	€ 7.359	€ 6.702	▲
23., Liesing	€ 6.089	€ 5.640	€ 5.719	€ 6.865	€ 5.844	▶

[6] Immopreise: December 2022, http://www.immopreise.at/Wien/Wohnung/Eigentum

h. Housing Terminology – Relevant terms/Basic Vocabulary

- "***Makler***"= Real Estate Agent

- "***Provision***"= Commission

  This is the fee for the real estate agent/agency. A normal "Provision" is 2 months' rent for a contract for more than 3 years and 1 month rent for a contract under 3 years, which you **do not get back**. If you want to find rent without the Real Estate Fee you need to look for "**Provisionfrei**" rent.

- *"**Kaution**"* = Security Deposit

  This is paid once as a deposit and then returned at the end of the contract, as long as the property has not been damaged during the tenancy. The "Kaution" can be the equivalent of 3-6 monthly rents. Always ask for a receipt of money paid.

- *"**Ablöse**"* = Transfer Money

  In some cases you will also have to pay an "Ablöse" to the landlord or the previous tenant for inventory or investments made. You can get it back in full or partially when you move out, but it is rather hard to get the full amount.

- "***Miete***"= Rent
  What is included in the rent?
  This varies with each apartment, it is best to check the terms of the contract. The terms below show you what is normally included in the monthly costs:
  - "Mietzins"= the rent itself (without running costs)
  - "Betriebskosten" = Running Costs

    Running costs are: water, chimney-sweep, garbage collection, insurance, common area cleaning,general upkeep and others. Most rents include the running costs (="Miete inklusive Betriebskosten"), which means, the yearly calculated running costs are included proportionally in the monthly rent.
  - "Umsatzsteuer/Mehrwertsteuer" = 10% VAT (value added tax)
  - "Heizung und Strom" = Heating and Electricity

    Heating and Electricity is normally not included in the rent and has to be paid separately to the chosen providers. Note: avoid electrical heating since it can be very expensive.

Energy Suppliers

You can find out which energy provider is responsible for your area and which tariffs are cheapest at Tarifkalkulator/E-control (tariff calculator/e-Control):

http://www.e-control.at/de/konsumenten/service-und-beratung/TarifkalkulatorApplication

Recycling

By law, everyone is required to recycle, and technically, you can be fined for not doing it. Large green bins have been made available throughout the city for your recycling comfort. Here's a quick translation:

- Weissglas: Clear Glass
- Buntglas: Colored Glass
- Altmetall: Old Metal
- Altpapier: Old Paper (not including drink cartons or shiny paper)
- Kunststoffe: Plastic

Cardboard drink cartons should be recycled separately from newspaper. Do not put them in the green recycling bins. Some drink bottles can be returned to the grocery store for money. Usually beer bottles and the heavyweight plastic soft-drink bottles fall into this category.

Phone, Internet and TV

a. Mobile and Landline Packages

The international dialing code for Austria is 0043. The outgoing code is 00 followed by the relevant country code (e.g. 0044 for the United Kingdom). The area code for Vienna is (0)1 and for Klosterneuburg (0)2243. To call Klosterneuburg from another country you have to dial 0043-2243-phone number.

There are different phone providers and you can choose between a contract package which often includes a free mobile phone or a 'pay as you go' or a pre-paid package.

b. Internet

ISTA offers WIFI all over the campus.

All Campus apartments provide internet access for free use.

For your personal internet access outside campus you can choose an access (only internet) or packages (landline, mobile and internet) from different providers (A1, Drei, T-Mobile). A list of internet cafés and other public access internet possibilities in the city can be found on the following website:

http://www.helge.at/wlan/ (only in German)

c. TV and Radio

In Austria you are required by law to register and purchase a licence for all broadcasting reception equipment like radio and TV by filling out an application form (http://www.orf-gis.at). Costs for radio and TV are € 26.33/month (2018) in Lower Austria and € 26.33/month (2018) in Vienna.

You can watch TV in Austria via cable TV or satellite.

The main Austrian terrestrial TV channels are ORF1, ORF2, ATV and Puls 4 TV.

The radio station FM4 broadcasts many programs in English and transmits the news in French twice a day. Radio station OE1 also transmits news in English and French in the news at 8 am.

Transportation

a. Public Transport

Vienna has a well-developed public transport network. Buses, trains, trams and underground lines take you almost anywhere in the city. Public transportation in Vienna is operated by "Wiener Linien" (www.wienerlinien.at). Vienna public transport is part of the 'Verkehrsverbund Ost-Region' VOR (transport association for Austria's eastern regions). 'Verkehrsverbund Ost-Region' is split into eight zones and includes parts of Lower Austria, Burgenland and all of Vienna. The city of Vienna accounts for one full zone or core zone (Kernzone or 'Zone 100'). A single ticket is valid for traveling one way in one zone. Klosterneuburg is in a different zone than Vienna.

In Klosterneuburg you have buses and trains for transportation. The bus line 239 takes you from campus to Vienna Heiligenstadt where you have underground line U4. You find the timetable of this bus on our website: www.ist.ac.at/fileadmin/user_upload/pdfs/TimetableBus.pdf.

Tickets

Single tickets can be purchased at a price of € 2.40 (2023). Tickets are available at ticket machines at most underground stations or at points of advance sale. Tobacco Shops (Tabak Traffik) also sell tickets. It is also possible to buy your ticket with your mobile phone via text message. All you need is an Austrian mobile number and you need to register for the service. Apart from single tickets there are passes for longer periods of time. Passes are available for 24 hours, 72 hours, or as weekly, monthly or annual passes for € 365.

The ticket for a single trip can be used for any single trip in one direction to one destination. You can change lines between bus, underground, tram and trains, but you may not interrupt your journey to your final destination. Children under the age of six travel free on Vienna´s public transport network. Children under the age of fifteen travel free on Sundays, public holidays and during Vienna school holidays.

Tickets must be validated before boarding. To validate your ticket, stamp the ticket at the blue machines located at the entrance of underground stations as well as on buses and trams.

IMPORTANT: The transport system is an "honour" system. However random ticket checks are carried out. IF YOU ARE CAUGHT WITHOUT A TICKET, OR AN INVALID TICKET, YOU WILL BE FINED EUR 100 ON THE SPOT AND ASKED TO LEAVE THE MEANS OF TRANSPORT.

Option a yearly KlimaTicket:

The KlimaTicket Ö allows you to use all scheduled services (public and private rail, city and public transport) in a specific area for a year: regional, cross-regional and nationwide during a year. It cannot be used on touristic offers like Waldviertelbahn, Wachaubahn, Schneeberbahn, Schafbergbahn, etc.

The KlimaTicket Ö is more than just your ticket for all public transport. It is also the ticket with which we aim to reach the Paris climate goals together. Public transport is the climate-friendly alternative to motorized individual transport. The more you participate, the better it is for the climate. That is why the KlimaTicket Ö is uncomplicated and affordable.

The KlimaTicket Ö costs € 1,095. Travellers aged 25 or younger, or 65 and older and disabled travellers pay € 821 (values December 2022). See more information on: https://www.klimaticket.at/en/

More information on Public transport and Prices on our Wiki Page: https://intranet.ist.ac.at/istwiki/index.php/IST_SHUTTLE_BUS_&_PUBLIC_TRANSPORTATION

b. Parking

Parts of Vienna are short-term parking zones for which you require a prepaid parking voucher (Parkschein).

More information short-term parking:
http://www.wien.gv.at/english/transportation/parking/shortterm.htm

More information prepaid parking:
http://www.wien.gv.at/english/transportation/parking/parkvoucher.htm

Garages in Vienna: http://www.parkeninwien.at/index.asp?menuID=1001

In Klosterneuburg you need different parking vouchers. You can buy them in tobacconists, banks, post and some shops in Klosterneuburg.

In both vouchers, from Vienna and Klosterneuburg, you have to fill in your arrival time. Vouchers are buyable for half an hour, an hour or two hours. The 10 minute parking ticket is for free.

c. Toll Sticker (Vignette) for Your Car

To drive with your car or motor vehicle at a motorway/highway you need a "Vignette" (toll sticker) in Austria. You can get a "Vignette" for 10 days (€ 9) 2 months (€ 26.20) or a year (€ 87.30) from most gas stations.

www.asfinag.at

d. Car Rental / Car sharing

You find all established car rental companies in Austria. To reserve a car you will always need a credit card and a valid driver`s license. Europcar, Sixt and Avis have got a station at Vienna airport but also at some points all over the city. Budget is located only at Vienna airport.

Europcar: www.europcar.at

Sixt: www.sixt.at

Avis: www.avis.at

Budget: www.budget.at

Another possibility to get a car is carsharing. To use this you have to register and pay an annual fee (€ 39 for students). Afterwards you can book a car via the internet or over telephone and pick up the car

with a carsharing card from one of the 32 stations in Vienna. The price depends on car model and driven kilometers. For more information please visit:

www.carsharing.at (only in German)

Another new possibility is the CAR2GO website. This is a new concept of car sharing with very low prices and increased flexibility. You need to register first before you can use their fleet of Smart cars at low prices.

http://www.car2go.com/wien/en/

e. Cycling (general, city bikes)

Bicycles will get you from A to B quicker than anything else in the city. The City of Vienna decided to raise the share of bicycles in overall traffic to 8%. A bicycle-friendly atmosphere is meant to help make bicycles an everyday means of transport. The bicycle path network is more than 1,050 kilometers long.

Bicycles are allowed on the underground from 9am to 3pm and after 6.30pm on weekdays, and all day Saturday and Sunday for free.

The "City Bikes Wien" (http://www.citybikewien.at/) introduced in 2003 are among the most modern free city bike systems worldwide. There are more than 60 bike stations throughout the city, open 24 hours a day, seven days a week. To use a City Bike you need a debit card (Bankomatkarte) or a Citybike-Card. The first hour is free with prices rising progressively from there on (minimum € 1 from the second hour). All terminals are equipped with touch screens, which also give access to Vienna's internet pages.

Bike rentals in Vienna:
http://www.wien.gv.at/english/transportation-urbanplanning/cycling/citybike.html

Traffic rules for bikers:
http://www.wien.gv.at/english/transportation-urbanplanning/cycling/traffic-rules.html

5. C. Austrian Support System for People with Disabilities

Austrian Regulations

The Austrian Constitution guarantees the equal treatment of disabled and non-disabled people.

The equal treatment of disabled persons is one of the main pillars of the responsible Austrian authorities. The first pillar guarantees a non- discriminatory treatment of disabled persons in all aspects of their daily lives as well as in the work environment. The next pillar refers to the right to claim in legal court if discrimination has occurred. The last pillar refers to barrier-free access and movement.

There are multiple federal as well as state laws ensuring that these principles are implemented and respected.

Major Institutions

The main responsible institution is the federal social office.

http://www.bundessozialamt.gv.at/basb/

Social Benefits

There is a variety of social benefits for disabled persons, depending on the degree of disability. They range from an income tax reduction to reduced public transportation prices, reduced parking fees, reduced train tickets, free highway toll sticker (vignette), cheaper cultural events to reduced entrance fees for cultural and leisure activities.

For more detailed information please contact the Human Resources office.

Section 6: ABOUT Austria

6. A. General Facts about Austria

Map of Austria

General geographical facts about Austria

Welcome to Austria, a small, predominantly mountainous country in Central Europe. Austria has a total area of 83,879 km² and a population of around 9.1 Mio people (January 2023) living here.

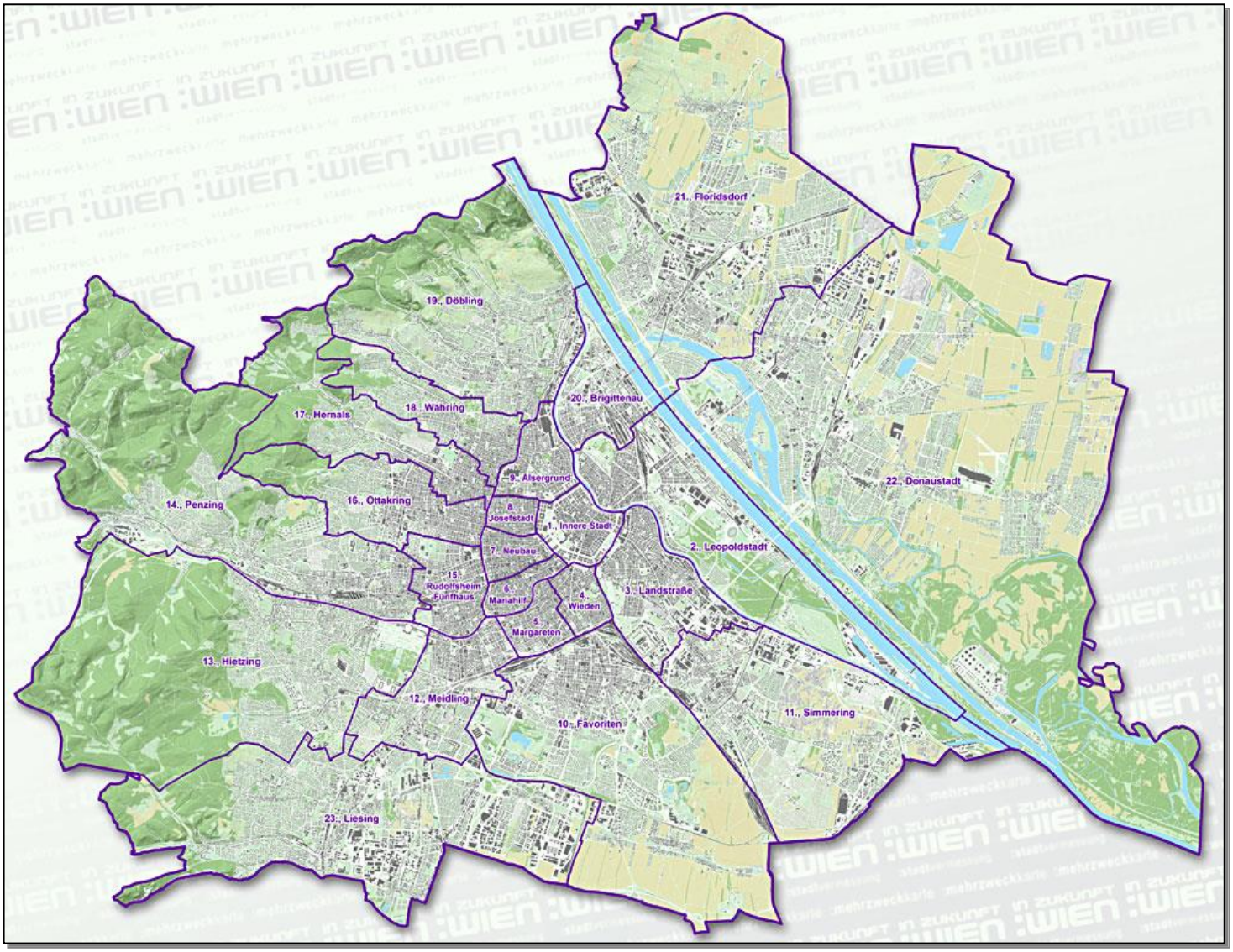
Austria is a landlocked country with no direct access to the sea. The neighbor countries of Austria are Switzerland and Liechtenstein in the west; Germany, Czech Republic and Slovakia in the north; Hungary in the east and Slovenia and Italy in the south.

Austria has 9 provinces: Vorarlberg, Tyrol, Salzburg, Carinthia, Syria, Upper Austria, Lower Austria, Vienna, Burgenland. Lower Austria is the largest one. Vienna is not only a province it is also the capital of Austria.

The largest river in Austria is the Danube, wish flows through Austria before emptying into the Black Sea. The highest mountain in Austria is called Großglockner.

German is the official language of Austria and is spoken by almost 97 % of the country's population. English is understood by a large percentage of the population.

Map of Vienna



Vienna is the capital of Austria and near ISTA. With the IST shuttle bus you can reach Vienna within 20 minutes.

Austrian History at a Glance

In the year 996, a document from Emperor Otto III contained the name 'Ostarrichi', from which came 'Österreich', the local name of Austria today. The country was ruled by the Habsburgers since 1273, which extended the country's borders and influence through marriage and inheritance.
Emperor Franz I. established the Austrian empire in 1804, but just two years later he was forced to relinquish his position as "Holy Roman Emperor of the German Nation" and cede territory, following Napoleon's occupation of Austria.
The so-called "Double-monarchy" of Austria and Hungary was established in 1867 as a union of two independent states under a common ruler (Franz Joseph I.).
The end of the First World War saw the declaration of the First Republic in 1918 and the end of the monarchy.
In 1938 Austria was renamed "Ostmark", when it became a part of National Socialist Germany and stopped being an independent state.
Austria was occupied by the Allies after the Second World War, regaining its sovereignty with the State Treaty of 1955.
Since 1st January 1995 Austria has been a member of the European Union.

Brief Introduction to Austria

Physically, the Alps dominate the landscape, but Austria is by no means all mountainous vistas: the country stretches across central Europe for some 700km, from the shores of the Bodensee in the west to the edge of the flat Hungarian plain in the east. Far removed from the archetype are the wetlands and reed beds of Burgenland, and the dramatic sequence of slopes that carve their way up the Erzberg in Styria. In Upper and Lower Austria in particular, the predominantly low-key landscape of gentle rolling hills and vineyards can come as something of a surprise to first-time visitors. Yet this fertile, low-lying northern half of the country is, in fact, where the majority of Austrians lives and works, many of them within commuting distance of the capital, Vienna – the country's chief tourist destination after the alpine regions.

For all its love of old worldliness and nostalgia for the days of the Habsburgs when Vienna was the capital of a vast, multinational empire, Austria today is a thoroughly modern and a clean country. Its tourist facilities are uniformly excellent, and whether you're staying in one of the popular skiing, hiking or spa resorts, or in an out-of-the-way Gasthof, you're likely to experience “Gemütlichkeit” – a typically Austrian term expressing a mixture of relaxed cosiness and hospitality – at some point during your visit. Like neighboring Switzerland, Austria is also a supremely law-abiding nation, where no one jaywalks or drops litter, and the trains and trams run on time.

Austria in the European Union (EU)

After a referendum, in which two-thirds of the Austrian electorate voted in favor, Austria became a member of the European Union on 1 January 1995, it has already held the Presidency of the EU Council twice since then, in 1998 and in 2006. In 2002 the Euro-currency was introduced in 12 European countries as common cash currency. The former Austrian currency “Schilling” was exchanged by 13.76030 Schillings to 1 Euro.

On 1 May 2004 a new dimension was opened up when the EU enlargement to the east came into force. As a result Austria is now surrounded by six EU member states and can be considered as the centre of the reunited Europe. This geopolitical situation makes Austria one of the most ardent supporters of the legitimate accession prospects and ambitious integration strategies for the countries of the western Balkan or south-eastern Europe, like Croatia and Turkey.

General Attitudes, Greetings & Cultural Differences

The standard greetings are "Grüß Gott" (= "may God bless you") or “Guten Tag / Abend” (= “Good Day / Evening”). You should always greet your neighbors and shopkeepers in this way, even if you do not know them personally.

The formal form for “you” (“Sie”) must be used in addressing a person in German, until you are given permission to use the informal “you” (“Du”) even if it is someone you feel that you know quite well. If you come from a country where people are generally casual and informal, don’t assume that your style will be understood or appreciated; you may just seem to be rude. Some foreigners mistakenly interpret the Austrian formality as unfriendliness. The truth is that in Vienna, as in most major cities of the world, people are more cautious about shifting status from acquaintance to friend.

Safety

Vienna is one of the safest cities in the world[7]. There are no areas or districts you should avoid. In general you can visit any part of the city at any time of the day without taking much risk. Just use your common sense. At night, though, it is wise to avoid parks. The ‘Prater’ (fair grounds/amusement park area) is said by some locals to be less safe at night, though more in reference to pickpockets than anything else. If you are a victim of theft or any other crime, report it to the police immediately. If credit cards were taken, call the issuing bank immediately, so that you will not be charged for the misuse of the card. Should your passport be stolen, call your country’s consulate/embassy or contact the local police station (to file a report) immediately.

Top 5 cities: Quality of living ranking:

- Vienna, Austria (1st)
- Zurich, Switzerland (2nd)
- Auckland, New Zealand (3rd)
- Munich, Germany (4th)
- Vancouver, Canada (tied 5th)
- Düsseldorf, Germany (tied 5th)

[7] http://www.mercer.com/articles/quality-of-living-survey-report-2011

Emergency Services Numbers

Emergency telephone codes	
Fire department	122
Police department	133
Ambulance	144
European emergency number	112
Doctors on call at night and weekends	141
Dentists on duty at night and weekends	www.zahnaerztekammer.at
Poisoning emergency line	01- 406 43 43
Pharmacy on duty at night and weekends	www.apotheker.or.at

Electricity

Austria´s mains supply is 230 volts (50 hertz). An adapter is required for devices with British or other non-European plugs.

Climate

The average temperature in summer is around 20°C with maximum temperatures of around 35°C. In winter, temperatures can be as low as –15°C, although the average is around -4°C. There can be especially heavy snowfall in the mountain regions. Highest rainfall is in May and June.

Climate			
month	**average afternoon temperature**	**hours of sunshine/day**	**rainy days/month**
January	-1°C / 28° F	1,8	8
February	1°C / 28° F	2,8	8
March	5°C / 32° F	4,1	7
April	10°C / 59°F	5,7	7
May	15°C / 68° F	7,1	8
June	18°C / 77°F	7,4	9
July	30°C / 86°F	7,9	9
August	30°C / 86°F	7,4	8
September	20°C / 68° F	5,7	7
October	13°C / 55° F	4,4	6
November	5°C / 41°F	2,1	8
December	1°C / 34°F	1,7	8

Public Holidays

Take note of the following public holidays. Shops will be closed (exception: 8 December) and public transport runs on Sunday schedule.

Public holidays in Austria in 2023:

- January 1: New Year's Day (Neujahrstag)
- January 6: Epiphany (Heilige Drei Könige)
- April 10: Easter Monday (Ostermontag)
- May 1: Labor Day (Tag der Arbeit)
- May 18: Ascension Day (Christi Himmelfahrt)
- May 29: Whit Monday (Pfingstmontag)
- June 8: Corpus Christi Day (Fronleichnam)
- August 15: Assumption of Mary (Mariä Himmelfahrt)
- October 26: National Day Austria
- November 1: All Saints Day (Allerheiligen)
- December 8: Immaculate Conception (Mariä Empfängnis)
- December 25: Christmas Day (Christtag)
- December 26: St. Stephen's Day (Stefanitag)

School holidays in Lower Austria

(there is NO SCHOOL, but normal working day)

- first complete week in February - Semester break ("Semesterferien")
- Palm Sunday till Tuesday after Ester Monday - Easter school holidays
- in May or June - White Sunday & Monday School Holidays till Tuesday after Whit Monday
- 2. November - All Souls' Day
- 15. November - St Leopold, Patron saint of the province of Lower Austria
- 24. December till 6. January - Christmas holidays

6. B. Daily Life

Music and Theatre

Burgtheater
(www.burgtheater.at)

The Burgtheater also known as 'Burg' or 'Haus am Ring' (House at Ring Boulevard) is situated in Vienna's first district. Inside, the Burgtheater provides a festive atmosphere for great cultural events.
Where? 1st district, Dr.-Karl-Lueger-Ring 2

Musikverein
= a.k.a. Gesellschaft der Musikfreunde in Wien (www.musikverein.at)

The society of friends of music ('Gesellschaft für Musikfreunde') was founded in 1812 by music loving people of the upper and middle class to promote musical life. Until then music had been the realm of aristocracy. The advent of the bourgeoisie resulted in a wider audience with a strong interest in music.
Where? 1st district, Bösendorferstraße 12

Raimund Theater
(www.musicalvienna.at)

The 'Raimund Theater' is a theatre that was once famous for its operettas, but now it is a major venue for musical theatre productions.
Where? 6th district, Wallgasse 18–20

Theater an der Wien
(www.theater-wien.at)

A stage with a long tradition is the centrally located 'Theater an der Wien', which was founded in 1801 by Emanuel Schikaneder, the librettist of Mozart's 'The Magic Flute'. This stage, now famous for its musical productions and opera productions during the 'Wiener Festwochen', has a longstanding tradition of opera.
Where? 6th district, Linke Wienzeile 6

Vienna State Opera
(www.wiener-staatsoper.at)

Vienna State Opera is one of the world's most famous opera houses. It was one of the first buildings on the famous 'Ringstrasse', built between 1861 and 1869 in neo-renaissance style. The 'State Opera' offers room for 2276 spectators and its stage is one of the largest in Europe. Mozart´s Don Giovanni was the first opera to open in the Staatsoper on May 25, 1869.
Where? 1st district, Opernring 2

Volksoper
(www.volksoper.at)

'Volksoper' is a major opera house, second only to 'Vienna State Opera'. The Volksoper repertoire consists of lighter operas and operettas. Productions are excellent with an accent on special effects and creative sets.
Where? 9th district, Währingerstrasse 78

Wiener Konzerthaus
(www.konzerthaus.at)

The 'Wiener Konzerthaus' was built in 1913 close to the Ring Boulevard and Stadtpark. Until the end of World War I it mainly focused on classical music. After that, the program has widened to include other performances, like modern dance. Together with 'Musikverein' and 'State Opera' it is one of Vienna's first addresses regarding music.
Where? 3rd district, Lothringerstrasse 20

Vienna´s English Theatre
(www.englishtheatre.at)

If you want to watch a play in English in Vienna.
Where? 8th district, Josefsgasse 12

Art and Museums

KunstHaus Wien
(www.kunsthauswien.at)

In the KunstHaus Wien a permanent Hundertwasser exhibition is on display. His philosophy, his works in the fields of painting, graphic, ecology and architecture are presented. Furthermore, you can find regular exhibitions of avant-garde and classic modern artists.
Where? 3rd disctrict, Untere Weissgerberstrasse 13

MAK
= Austrian Museum of Applied Arts / Contemporary Art (www.mak.at/aktuell)

With an extraordinary collection of applied and contemporary art, the MAK serves a dual purpose as a conservator of significant art objects and as a center for the scientific research of art with a special emphasis on its production, preservation, and reorientation.
Where? 1st district, Stubenring 5

Museumsquartier Wien
(www.mqw.at)

The MuseumsQuartier Wien is one of the ten largest cultural complexes in the world. The spectrum ranges from large art museums like the Leopold Museum (www.leopoldmuseum.org), which contains the largest Egon Schiele collection worldwide, together with major works by Gustav Klimt, Oskar Kokoschka and others and the MUMOK (Museum of Modern Art Ludwig Foundation Vienna, www.mumok.at) to contemporary exhibition spaces like the Kunsthalle Wien and festivals like the Wiener Festwochen. Additional highlights include the TanzQuartier, an international, state-of-the-art center for dance, the Architektur Zentrum Wien, production studios for new media, artist studios for artists-in-residence, outstanding art and cultural facilities designed for children, and a variety of other events and festivals.
Where? 7th district, Museumsplatz 1

Albertina
(www.albertina.at)

The Albertina contains a world-renowned collection of more than 65,000 prints, watercolors and drawings. It is well known for its Dürer collection e.g. picture "Feldhase" from 1502.
Where? 1st district, Albertinaplatz 3

Secession
(www.secession.at)

Exhibition Hall for Contemporary Art-The Vienna Secession was formed in 1897 by a group of Austrian artists who had resigned from the Association of Austrian Artists, housed in the Vienna Künstlerhaus.
Where? 1st district, Friedrichstrasse 12

Österreichische Galerie Belvedere
(www.belvedere.at)

The Upper Belvedere houses own art nouveau works by Klimt, Schiele and Kokoschka.
Where? 3rd district, Prinz Eugen-Strasse 27

Kunsthistorisches Museum
(www.khm.at)

The Museum collections range from Ancient Egyptian and Greek and Roman Antiquities, and

the Collections of Medieval Art to the splendid Renaissance and Baroque Collections.
Where? 1st district, Maria Theresien-Platz

Naturhistorisches Museum
(www.nhm-wien.ac.at)

In the Natural History museum the visitor can travel through our planet's history, through the breathtaking diversity of nature and back to the origins of our culture.
Where? 1st district, Maria Theresien-Platz

Cinemas

Normally films are shown in German. There are however, a number of cinemas in Vienna showing films in English or in their original language. To find the right version look out for the following abbreviations in the cinema program: OV (original version), OmU (original version with subtitles) and OmeU (original version with English subtitles). There are also cinemas which show films exclusively or mainly in English. These include:

English Cinema Haydn

Where? 6th district, Mariahilferstrasse 57; Tel: +43 (1) 587 22 62

http://www.haydnkino.at

Burgkino

Where? 1st district, Opernring 19; Tel: +43 (1) 587 84 06

http://www.burgkino.at/

Artis International

Where? 1st district, Schultergasse 5; Tel: +43 (1) 535 65 70

http://www.film.at/artis_international/

In the summer, there are open-air screens for cinema enthusiasts to enjoy their favorite films.

You will find more Cinemas in Vienna on our Wiki Page: *https://intranet.ist.ac.at/istwiki/index.php/Cinemas*

For more detailed information about culture and leisure activities please contact Vlad Cozac (ext. 1083).

Big Events

Ball Season

Vienna is famous for its ball season which runs from November to February (sometimes March) every year. Instead of celebrating carnival out in the streets with masks, the Viennese dance to the waltz. Maria Theresia prohibited the use of masks in public so carnival moved inside and over the years became the ball season. There are around 280 balls every year that appeal to all tastes and budgets. Further information is available at: www.ballkalender.at

Everyone knows the 'Vienna Opera Ball' as the epitome of glamour and tradition. Around this highlight of the Viennese carnival, a culture of alternative counter-events has developed over the years.

Danube Island Festival

The biggest party, not only of the city but in all of central Europe, however, is the 'Danube Island Festival': for four days in June, open air, hundreds of bands, cabaret artists and other performers draw millions of visitors to the Danube Island – and there's no admission charge! Further information: www.donauinselfest.at

Jazz Festival

At Vienna´s jazz festival in June/July international jazz artists perform in the Staatsoper, the Volkstheater and open-air concerts. Ticket prices vary. www.viennajazz.org

Nova Rock

Is a big rock/metal festival near Vienna with a lot of international rock/metal singers and bands, normally held in June. Further information: www.novarock.at

Frequency Festival

Frequency is more popular among people preferring more alternative music, therefore genres like electronic, indie and also rock is played at this festival. It takes place in St. Pölten, 70 km away from Vienna. Further information: http://www.frequency.at/?language=en

Concert for Europe

Also for free is the big open-air 'Concert for Europe' in the Schönbrunn Palace parks. The Vienna Philharmonic performs in front of breathtaking scenery. The concert usually takes place at the end of May or beginning of June. For details: www.europa-konzert.at

Film Festival

Free of charge is also the 'Film Festival'. During the summer months, it turns the square in front of City Hall (1st district, Rathausplatz) into a stage for classical music films, ranging from Mozart to musicals. The big culinary market which provides international food is sometimes more interesting than the film. www.wien-event.at

Viennale

Vienna's major film festival 'Viennale' took place for the first time in 1960. Since then it has aimed to present international and Austrian films of high quality and is proud of its international reputation. Venues are spread over Vienna's historic Center. Usually, about 200 films, documentaries and short films are broadcast and attract more than 70,000 visitors! First screenings, tributes, retrospectives and various

theme-specific shows offer diverse and fascinating insights into contemporary and past achievements of movie making! Further information: http://viennale.at

Christmas

During the advent season leading up to Christmas, Vienna offers a great number of so-called 'Christkindlmärkte'. They offer all sorts of traditionally crafted items, modern knick-knack, food and drink. 'Glühwein' (mulled wine) and 'Punsch' are a very popular way to warm up in on cold days.

Apart from these 'Big Events' there are many more, too many to list (e.g. the Wiener Festwochen, Summer Stage etc.). Check the programs at the Tourist Office (Albertinaplatz or www.wien.info).

Shopping

Most Shops, drug stores and department stores are generally open from 9 or 10 am until 6 or 7 pm in Austria. Most supermarkets open at 8 am and close partly at 7 or even 8 pm. Shops are closed on Sundays, but some bakery stores do have opened on Sunday mornings for breakfast. In larger cities, you can go shopping at the railway stations on Sundays. You can also buy food at many petrol stations after 8 pm and on Sundays and holidays.

You can pay by debit card (Bankomatkarte) or credit card in most large shops. Small shops in villages may not accept cards, but this is increasingly rare.

Good addresses for a shopping day are for example the shopping streets Mariahilferstrasse and Kärtnerstrasse in Vienna. Here you can find any kind of clothing from t-shirts to pants and from underwear to evening attire.
In Vienna there are also a lot of shopping malls, for example Donauzentrum and Millenium City. There you can find shopping opportunities as well as gastronomy and leisure activities (e.g. cinema, bowling).

The closest supermarket to the ISTA is "Billa" just opposite of the Campus. There are many different supermarkets along the B14 road to Vienna. The cheapest one is "Hofer", which is a discounter. The closest place to go shopping is in the small city center of Klosterneuburg where a bank, a pharmacy, a butcher, a baker, a drugstore and some other shops are located.

Travel and (Public) Transportation

There are buses as public transport throughout Austria.
In the east of Austria (Lower Austria, Vienna) buses belong to the transport association “VOR”. On the homepage of VOR you can find everything about the tickets and the timetables (https://www.vor.at/ - the ISTA Shuttle Bus has Nr. 142).

There is a well-developed railway network throughout Austria. The public railway is called "ÖBB" (https://www.oebb.at/) and runs all over Austria and the neighbouring countries. The private railway network "Westbahn" only runs on the "East-Line" (Vienna-St.Pölten-Salzburg).

In Vienna there are also trams and metro lines (“Wiener Linien” - https://www.wienerlinien.at/eportal3/)

All public connections (bus, train, underground, ...) can be looked up via the app "Scotty" (https://fahrplan.oebb.at/bin/query.exe/dn?).

A single trip on public transportation in Austria costs between 1.80 and 2.20 EUR. Journeys on buses and trains in rural areas cost an average of 2 EUR every five kilometers.

Nationals of EU/EEA member countries are allowed to drive in Austria on their existing licences for an unlimited period, or can convert them to an Austrian licence without having to take a test.

Other foreign nationals can drive on their existing licences for six months from the time they take up residence in Austria. Licences from non EU/EEA countries can be converted to Austrian licences without the need to take an Austrian driving test.

The driving side with the car and bicycle is on the right side of the street.
If you drive, you will have to pay a toll to use the motorways. You will also need a motorway sticker (“Autobahnvignette”). You can buy these at post offices, Trafik-shops, border posts, and service stations.

Food and Beverage

Restaurants serving local cuisine can be found on almost every street corner. You can also find a variety of different food in every town in Austria, for example Italian, Greek, Chinese, Mexican and fast food. A good restaurant guide for Vienna is on Falter website (only German): http://www.falter.at/web/wwei/

Etiquette

Eating and drinking before others are ready is impolite.
Be sure to wish everyone at your table “Mahlzeit” or “Guten Appetit” before you start eating.
It is polite to say cheers (“Prost” in German), clink glasses and look in the other’s eyes before taking an alcoholic drink (beer, wine, sparkling wine).

Tipping

When you pay the waiter/waitress, you should just round up the amount and add 1-2 € and let that count as their tip. It is not common in Austria to leave money on the table as you leave, you should give it directly to the server. It is estimated that tips in Austria range from 5% to 7% of the total amount.

Paris has its bistros, Prague its beer taverns and London its pubs. Vienna has two types of typical gastronomic establishment on offer: the 'coffee house' and the 'Heuriger'.

Coffee Houses (Café / Kaffeehaus)

More than 500 of these oases can be found, where you can sit for hours in peace over a 'Melange' – a mocha with lots of milk – and the obligatory glass of Viennese spring water.

To be precise, Viennese coffee houses offer you at least twelve variations of coffee. To start with, there's the small or large 'Schwarzer' (mocha without milk) or 'Brauner' (with milk). The 'Melange' is a coffee with lots of milk, topped with milk foam and dusted with either coffee, cinnamon or cocoa powder. A 'Kaisermelange' has an egg yolk stirred in! The 'Fiaker' is a glass of mocha, the 'Einspänner', a Fiaker with a portion of whipped cream. A coffee diluted with added water is a 'Verlängerter'.

Wineries (Heuriger)

This Viennese institution enjoys undiminished popularity: the 'Heuriger'. These traditional wine taverns, mostly with picturesque vaulted ceilings, courtyards and gardens, in which you can savor the new wines and good home cooking are to be found concentrated in the old wine-making villages on the outskirts of the Vienna Woods in the northwest of the city or in Lower Austria. Just as popular are those in the quieter wine-growing regions such as Strebersdorf and Stammersdorf right up in the north on the other side of the Danube, or, close to the southern city boundary, in the district of Mauer. The genuine Heuriger, also known as a 'Buschenschank' can be recognized by the 'Föhrenbusch', the sprig of Scots pine and the sign saying 'Ausg'steckt' by the entrance.

In the "Heurigenkalender" you can look up where which Heurigen are open (= "ausg'steckt"), because the opening hours depend on the season. https://heurigenkalender.niederoesterreich.at/

Beer, Wine and Alcohol

Beer is generally sold in the following sizes: 0.2 liter (a 'Pfiff'), 0.3 liter (a 'Seidel' or 'kleines Bier') and 0.5 liter (a 'Krügerl', 'Halbe' or 'großes Bier'). The most popular types of beer are pale 'lager', naturally cloudy 'Zwicklbier', and 'wheat beer'. During holidays like Christmas and Easter 'bock'-beer (Bockbier usually has 10% or more alcohol) is also available.

Wine growing has a long tradition in Austria. The most important wine-producing areas are Lower Austria especially the Wachau region (white and red wine), Burgenland (red wine) and Styria (white wine). Very popular and worth a visit is the "Südsteirische Weinstrasse (South Styrian Wine Road), where you find wonderful landscapes, cosy "Buschenschänke" serving hearty home cooking and a nice drop of the local produce along the wine roads.

The national liquor of Austria is "Schnapps". There are a large variety of fruits and berries used, commonly plums ("Zwetschken") but also apricots ("Marille"). The liquid is distilled either once (producing 40% proof alcohol) or twice (producing 80% proof alcohol).

Fast food

The traditional Viennese fast food is sausage. You can buy hot sausages and hot dogs at snack bars called 'Würstelstand' all over town and at almost any time of day as there are quite a few 'Würstelstände' open 24hrs a day. The famous 'Wiener Würstel' is mostly known as the 'Frankfurter' in Vienna, but most inhabitants prefer 'Burenwurst' and 'Käsekrainer' (sausage with cheese chunks).

A relatively new addition to the local snack culture is 'Döner / Kebap', sandwiches of Turkish origin with roasted meat, salad and yogurt sauce. Places that sell kebap often sell take-away pizza, too. Good kebaps can be bought at the 'Naschmarkt'; the lower end of the 'Naschmarkt' (furthest away from Karlsplatz or city Center) is cheaper than the upper end.

Viennese / Austrian food-specialities

Apfelstrudel = A dessert, consisting of grated apples, chopped nuts, sultanas, flavored with cinnamon and sugar, in wafer-thin pastry.

Kaiserschmarrn = Dessert made of torn or shredded pancakes, sprinkled with sultanas and sugar and covered in stewed plum sauce.

Palatschinken = Pancakes, various filled e.g.: with apricot jam, quark, nuts or chocolate sauce.

Wiener Schnitzel = Classic veal cutlet coated in breadcrumbs and fried golden brown- usually served with potato salad.

Stelze = Grilled lower leg of pork or veal, typically served with sauerkraut und bread dumplings.

Tafelspitz = Prime piece of boiled beef served with chive sauce, roast potatoes and apple sauce with horseradish.

Open Air Markets

You find open-air markets in various districts of Vienna. The most famous one is the "Naschmarkt" (public transport: U4 - Kettenbrückengasse). You can find almost everything there including unusual spices, seafood, meat, every vegetable and fruit, oriental specialities, cooking utensils, cheeses and so on.

Nightlife

If you like to party, dance or just sit in a bar with live music or a live DJ, there are many places to go to. They offer a wide range of different music styles, from chart music, to electronic beats and jazz sounds. Vienna offers a varied nightlife with a lot of clubs and bars for every taste in music, so there is no need to go to bed, but many reasons to stay up all night.

Here is just a small selection of clubs, bars and places to go to:

Discos & Clubs:

Flex, 1., Donaukanal (Augartenbrücke), www.flex.at

Babenberger Passage, 1., Burgring 3/ Babenbergerstraße, www.club-passage.at

Volksgarten, 1., Burgring 1, www.volksgarten.at

Pratersauna, 2., Waldsteingartenstraße 135, www.pratersauna.tv

Fluc, 2., Praterstern 5, www.fluc.at

Praterdome, 2., Riesenradplatz 7, www.praterdome.at

Grelle Forelle, 9., Spittelauer Lände 12, www.grelleforelle.com

U4, 12., Schönbrunner Str. 222, www.u-4.at

Live-Music:

Albertina Passage, 1., Opernring/Ecke Operngasse, www.albertinapassage.at

Porgy & Bess, 1., Riemergasse 11, www.porgy.at

Ost Club, 4., Schwarzenbergplatz 10, http://ost-klub.at/index.php?lang=en

Rhiz, 8., Lerchenfelder Gürtel/ Stadtbahn- bogen 37-38, www.rhiz.org

Chelsea, 8., Lerchenfelder Gürtel/Stadt- bahnbogen 29-30, www.chelsea.co.at

B72, 8., Hernalser Gürtel, Stadtbahnbogen 72, www.b72.at

You will find more information on night life in Vienna with different categories and styles as well as descriptions of the different clubs discos pubs and bars here:
http://www.wien.info/en/lifestyle-scene/nightlife/#
http://www.vienna4u.at/nightlife.html

Interesting Sights around ISTA Campus

Around the ISTA Campus, in Klosterneuburg, Maria Gugging and St. Andrä-Wördern there are many places worth visiting just a few minutes away with car or by bus.

Hagenbachklamm (https://www.wienerwald.info/en/a-hagenbachklamm)

Between Klosterneuburg and St. Andrä-Wördern lies the Eichenhain Nature Park with its heart, the "Hagenbachklamm". The circular hike leads from the entrance to St. Andrä (accessible by bus from the ISTA station), the heart of the Eichenhain Nature Park, and back again.

The tree shadows and the brook invite you to take a leisurely walk even on hot summer days. A large children's playground and the largest private bird of prey station in Europe await you at the end of the gorge.

Stift Klosterneuburg (http://www.stift-klosterneuburg.at)

Since the monastery's founding, the Augustinian Canons of Klosterneuburg have viewed it as their duty to foster scholarship and art. As a result of their 900 years of research and collecting activities, the monastery is home to a series of notable artworks, from the famous Verdun Altar from the Middle Ages to magnificent Baroque works through to modern painting.

Art Brut Center Gugging (www.gugging.org)

Focusing on the work of Gugging Artists, this museum was conceived as a showcase for Art Brut. In addition, the museum aims at presenting international Art Brut as well as other artistic styles in conjunction with Art Brut. The museum has an exhibition space of 1,300 sqm at its disposal. In 1890, this building first served as a ward of a psychiatric institution. It was completely adapted to its new purpose over the past few years. It is right next to ISTA.

Danube Bike Path

The Danube bike path is said to be Europe's best known and most loved bike trip. It starts in Passau, Germany near the Austrian border and continues for 230 miles to Vienna. There are bikes paths almost all the way, and there is usually a choice of being on the northern or southern bank of the river. All along the way there are delightful small towns, placid scenery, castles on the hills, monasteries, and excursions into woods and farm country.

Open Air Bath Klosterneuburg - "Strandbad"

(www.klosterneuburg.at/system/web/gelbeseite.aspx?typ=3&bezirkonr=0&detailonr=220503222&menuonr=220468648 – only in German)

In addition to a beach at a river channel of the Danube, the bathing area pleases bathers of every age with a spacious solar heated adventure pool with a 45m water chute, a flow channel, a children´s pool, a massage pool, a waterfall, and a trampoline. If you prefer drier activities: a basketball court, 3 beach volleyball fields, tennis courts, and a football field are ready for you.

Interesting Sights in Vienna

There are many things that are worth seeing in Vienna – no matter if you are a "newcomer" or a "local" – there are always exciting things to discover.

St. Stephen´s Cathedral (www.stephanskirche.at)

St. Stephen´s Cathedral is Vienna´s most famous Cathedral and located in the inner city. Its story reaches as far back as the 12th century.

1st district, Stephansplatz (public transport: U1 or U3 – Stephansplatz)

Schönbrunn Castle and Schönbrunn Zoo (www.schoenbrunn.at)

Under the rule of Maria Theresia, Schloss Schönbrunn became the glorious centerpiece of the imperial court in Baroque and Rococo style. Schönbrunn Park, one of the most significant Baroque gardens in the French style, has an area of almost 2sq km (500ac).

13th district, (public transport: U4 –Schönbrunn)

Ring Boulevard

The Ringstrasse was constructed from 1859 onwards. It surrounds the City Center and you can find important buildings along, such as the Parliament, City Hall, the Vienna University, the Opera House, Museums and many more.

Prater (www.prater.at)

The Prater is Vienna`s amusement park, which holds the world famous Riesenrad (Ferris wheel) and many rides and beer halls. A famous restaurant here is the "Schweizerhaus" with its large beer garden and the "Stelze" (Grilled lower leg of pork or veal, typically served with sauerkraut and bread dumplings).

2nd district, Praterstern (public transport: U1 or U2– Praterstern)

You can find useful information on guided tours in Vienna here:

www.viennacitytours.com/

https://www.viennasightseeing.at/en/

http://www.wien.info/en/sightseeing/tours-guides?set_language=en

http://worldtradetickets.at/

However if you want to experience Vienna like a local this is your webpage:

http://www.spottedbylocals.com/vienna/

Day Trips

From culture to sports some ideas for nice day trips are collected here.

Vienna Woods (https://www.wien.gv.at/umwelt/wald/freizeit/wandern/)

The Vienna Woods (= ”Wienerwald”) border the city on its northern and western sides and are a nice recreation area for hiking. The woods are full of color-coded hiking trails, most of which start out from the end of public tram and bus lines. Many of them are marked as “City Hiking Routes”.

Donauinsel (www.donauinsel.at)

The Donauinsel is a popular meeting point for relaxing in Vienna. It offers surroundings for a lot of leisure activities such as cycling, inline skating, paddleboating or just lying in the sun and bathing. You also find various restaurants and nightlife in summer.
22nd district (public transport: U1 – Donauinsel)

Vienna – Bratislava via Danube (www.ddsg-blue-danube.at)

The Twin-City-Liner takes you directly from city-center of Vienna (Schwedenplatz) to the city-center of Bratislava on the Danube River. It takes about 1.15 hours.

Neusiedler See (www.neusiedlersee.com)

Lake Neusiedl in Burgenland is perfect for nature lovers, with its reed belt providing the perfect shelter for rare animals. Its scenery is especially impressive in the spring and autumn. It is also a hotspot for surfing and sailing fans. This area is also known for its top class European red wines. You find nice wine routes and vineyards and “Buschenschank” along the Neusiedler See.

Wachau (www.wachau.at)

The Wachau region is attractive due to its mild climate, gorgeous spring bloom, cheerful Baroque architecture, nice hiking and cycling tracks and excellent wine and „Heurigen“. The region was declared a World Cultural and Natural Heritage site by UNESCO in 2000. From Vienna it takes you about 1 to 1:30 hours by car to get there. You can also get there by train (Vienna-Krems).

Garden and Flower Paradise (https://diegartentulln.at/de/home; https://www.tulln.at/freizeit-und-tourismus/freizeit-und-erlebnisangebot/)

For garden lovers a visit to the "Gartenstadt-Tulln" is a must see. Tulln is a small town on the Danube with a beautifully landscaped “Donaulände”, perfect for walking or cycling.

There is also the "Garten Tulln", the first garden show in Europe. At the end of August there is the popular fair "Gartenbaumesse" in Tulln, where everything around garden, flowers and plants is presented.

Semmering (www.zauberberg.at; www.semmering.at)

Semmering is a worthwhile day trip destination with the Hirschenkogel and Stuhleck ski area, sledding trails, extensive hiking and mountain-bike trails and a variety of cultural events.

Thermal bath – Therme Wien (https://www.thermewien.at/en/)

The "Therme Wien" is in Vienna and invites you to relax and enjoy.
In Austria there are many baths with thermal water.
Further thermal baths nearby ISTA: Laa an der Thaya (Lower Austria), Asia Linsberg (Lower Austria), St.Martin (Burgenland), Lutzmannsburg (Burgenland)

Sports

Austria offers widespread opportunities for skiing, mountain-biking, mountaineering, aviation, cycling, water sports, hiking, spas and wellness and all kinds of winter sports.

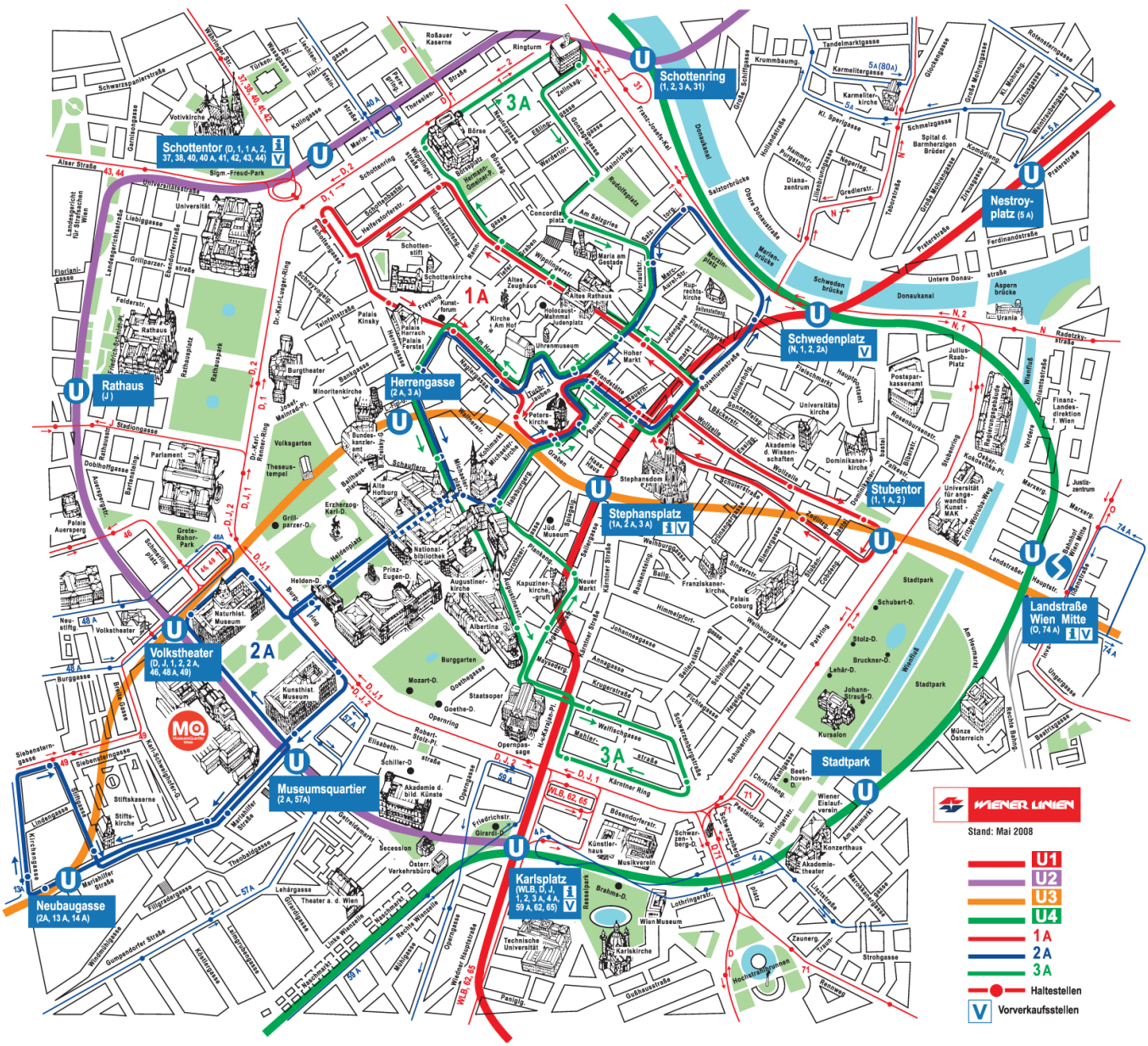
For more detailed information concerning recreation and sports please contact Vlad Cozac (Ext. 1083). At the Human Resources office you can look into and borrow various guides and maps.

Useful Maps and Information

Vienna Public Transport Map

Vienna Inner City Public Transport Map

for more info please refer to http://www.wienerlinien.at/eportal/



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	Montag - Freitag																		
Kursnummer	101	103	105	107	109	111	113	115	117	119	121	123	125	127	129	131	133	135	137
Verkehrshinweis	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Wien Heiligenstadt (F)	6.57	7.27	7.57	8.27	8.57	9.27	9.57	10.57	11.57	12.57	13.57	14.57	15.57	16.57	17.27	17.57	18.27	18.57	19.57
Klosterneuburg Stadtplatz	7.15	7.45	8.15	8.45	9.15	9.45	10.15	11.15	12.15	13.15	14.15	15.15	16.15	17.15	17.45	18.15	18.45	19.15	20.15
Maria Gugging IST Austria	7.23	7.53	8.23	8.53	9.23	9.53	10.23	11.23	12.23	13.23	14.23	15.23	16.23	17.23	17.53	18.23	18.53	19.23	20.23
- Am Campus	7.24	7.54	8.24	8.54	9.24	9.54	10.24	11.24	12.24	13.24	14.24	15.24	16.24	17.24	17.54	18.24	18.54	19.24	20.24

ZEICHENERKLÄRUNG: **6** = bei Benutzung der Linie 142 ist ein Zuschlag von Euro 0,20 zu entrichten

Am 24. und 31. Dezember kein Verkehr

142 SHUTTLEBUS IST Austria gültig ab 18.01.2021

VOR DER VERKEHRSVERBUND

Betreiber: ZuklinBus GmbH, Inkustraße 8-10, 3400 Klosterneuburg, Tel.: 02243/32171-20 Alle Angaben ohne Gewähr

	Montag - Freitag																		
Kursnummer	102	104	106	108	110	112	114	116	118	120	122	124	126	128	130	132	134	136	138
Verkehrshinweis	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Maria Gugging Am Campus	7.26	7.56	8.26	8.58	9.28	10.28	11.28	12.28	13.28	14.28	15.28	16.28	16.58	17.28	17.58	18.28	18.58	19.28	20.28
- IST Austria	7.27	7.57	8.27	8.59	9.29	10.29	11.29	12.29	13.29	14.29	15.29	16.29	16.59	17.29	17.59	18.29	18.59	19.29	20.29
Klosterneuburg Stadtplatz	7.35	8.05	8.35	9.07	9.37	10.37	11.37	12.37	13.37	14.37	15.37	16.37	17.07	17.37	18.07	18.37	19.07	19.37	20.37
Wien Heiligenstadt (F)	7.55	8.25	8.55	9.25	9.55	10.55	11.55	12.55	13.55	14.55	15.55	16.55	17.25	17.55	18.25	18.55	19.25	19.55	20.55

ZEICHENERKLÄRUNG: **6** = bei Benutzung der Linie 142 ist ein Zuschlag von Euro 0,20 zu entrichten

Am 24. und 31. Dezember kein Verkehr

SHUTTLE BUS PRICES (valid as of July 06, 2016)

IST Austria shuttle bus prices for regular passengers.	One-way ticket ADULT 16 years and older	One-way ticket CHILDREN 6years - completet age of 15 years
Vienna/Heiligenstadt - Klosterneuburg/Stadtplatz - IST AUSTRIA/Maria Gugging OR IST AUSTRIA/Maria Gugging - Klosterneuburg/Stadtplatz - Vienna/Heiligenstadt WITHOUT a ticket for Vienna	€ 4,10	€ 2,20
Vienna/Heiligenstadt - Klosterneuburg/Stadtplatz - IST AUSTRIA/Maria Gugging OR IST AUSTRIA/Maria Gugging - Klosterneuburg/Stadtplatz - Vienna/Heiligenstadt WITH a ticket for Vienna	€ 1,90	€ 1,10
Children (0 – completed age of 6 years)		FREE
Children with a "Jugendticket / TOP-Jugendticket" have to pay a surcharge of € 0,20 to use the IST Austria shuttle bus.		
IST Austria assumes no liability for the content above. All content is subject to change. Official bus schedule can be found on www.vor.at IST AUSTRIA SHUTTLE BUS / 31.08.2016		

Vienna and Surroundings Map

For orientation: ISTA is located at "Klosterneuburg", in the west of Vienna

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