

Unfold

2025

SHORT VERSION



Institute of
Science and
Technology
Austria

To become visible.

FOREWORD

Unfold



Martin Hetzer
President

“We strive to inspire, support, and guide the next generation in realizing its full scientific and professional potential. This requires continuous development, purposeful adaptation, and a clear commitment to improvement.”

Martin Hetzer, President

As researchers, we are driven to explore the mysteries of nature. As an institute, however, our responsibility extends further: to inspire, support, and guide the next generation in realizing its full scientific and professional potential. This requires continuous development, purposeful adaptation, and a clear commitment to improvement. The notion of *unfolding* captures this shared endeavor.

In 2025, we completed Phase II of our campus expansion—an integral step in our Masterplan 2036 and a testament to our successful partnership with the Ministry for Women, Science, and Research, the government of Lower Austria, and the city of Klosterneuburg. Building on this progress, we have already advanced into Phase III, which includes the development of Lab 7 and a new Facility Management Building. In addition, the XISTA Science Park is continuing to be expanded. With the opening of our new kindergarten, we are also investing in the youngest members of our community. A highlight was the opening of the VISTA Science Experience Center and its inaugural exhibition, “Science in the Making,” designed as a bridge between science and society.

Being home to 86 faculty members across all major scientific disciplines, we remain committed to our goal of 150 research groups and more than

2,000 employees by 2036. The nine European Research Council (ERC) grants awarded in 2025 exemplify the ambition and rigor defining our culture.

From over 8,000 applications, we selected 79 outstanding students for our PhD program. We extend our gratitude to Eva Benková for her service as Dean of the Graduate School, a role she handed to Mario de Bono in 2025.

Welcoming EU Commissioner for Startups, Research and Innovation Ekaterina Zaharieva to our campus was a special honor. Our shared conviction in the essential role of fundamental research for Europe’s future strengthens my optimism that, even in challenging times, ISTA will play a pivotal role in shaping tomorrow’s research landscape.

As you unfold this annual report, reconnect with your curiosity. You will witness how it blossoms during your next visit to ISTA—where the wonders of science, quite literally, are in the making.



OFFICIAL VISIT: EU COMMISSIONER ZAHARIEVA

EU Commissioner Ekaterina Zaharieva in a discussion with ISTA postdocs and PhD students at the new Coffee Lab in the VISTA Science Experience Center.

Shaping Europe’s Research Landscape

In November 2025, EU Commissioner for Startups, Research and Innovation Ekaterina Zaharieva visited the ISTA campus. The half-day tour began with a welcome by ISTA President Martin Hetzer, Managing Director Georg Schneider, Executive Vice President and Professor Gaia Novarino, Deputy Managing Director Barbara Abraham, and XISTA Managing Partner Markus Wanko.

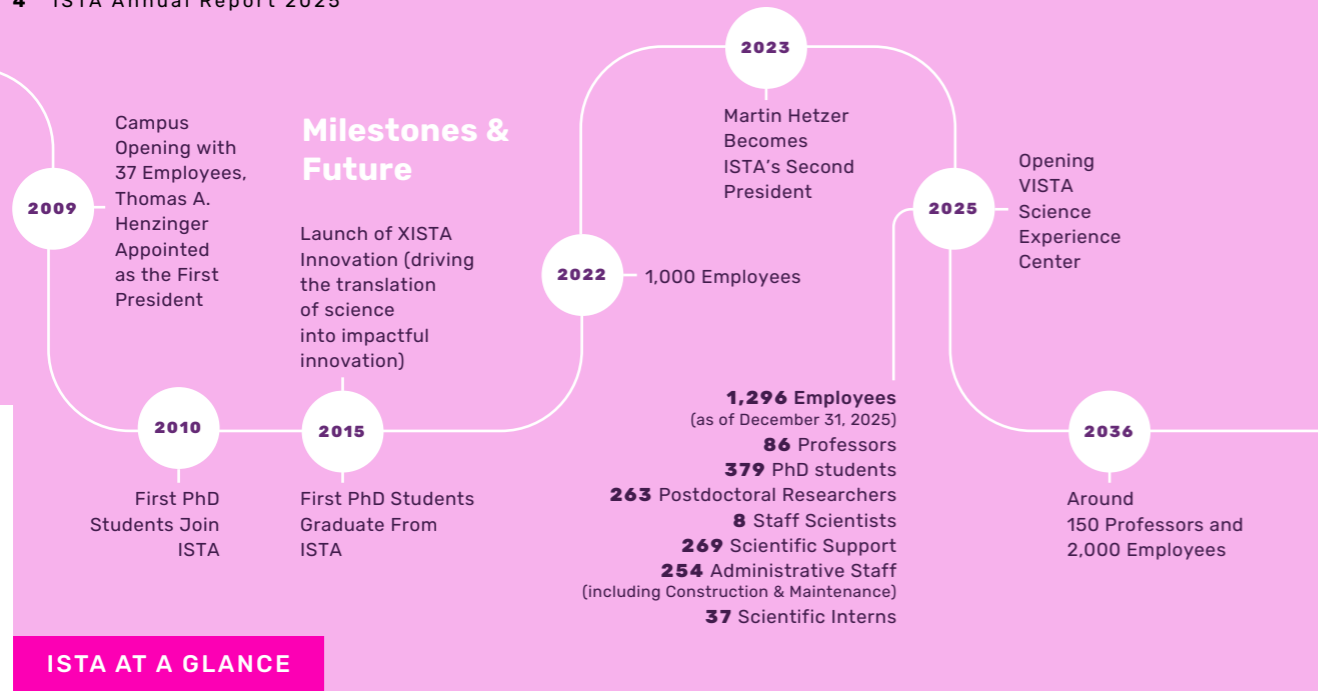
Commissioner Zaharieva toured several research groups on ISTA’s growing campus. At Maria Ibáñez’s Werner Siemens Thermoelectric

Laboratory, she learned about new materials for the energy sector. Christoph Lampert’s group introduced ISTA’s work on improving the trustworthiness of AI, followed by a visit to Gaia Novarino’s lab, focused on neurodevelopmental disorders such as epilepsy, intellectual disability, and autism.

At the newly opened VISTA Science Experience Center, Zaharieva and ISTA management met postdocs and PhD students, including Julia Gallenberger, Philippe Georg Dehio, and Roksolana Kobylinska. Their

discussion emphasized ISTA’s role in training early-career scientists and fostering interdisciplinary research. Commissioner Zaharieva stressed that Europe must tell a positive, forward-looking story rooted in its scientific excellence and research leadership to attract talent and build confidence.

Finally, a short walk across the bridge to the XISTA Science Park highlighted how ISTA connects frontier research with the innovation ecosystem through startup support, venture funding, mentoring, and partnerships.



Curiosity Drives Science

ISTA exists to be a beacon of frontier science, education, and research management. Our pledge: Brave science for a brighter tomorrow.

The Institute of Science and Technology Austria (ISTA) in Klosterneuburg near Vienna is a PhD-granting research institution uniting leading scientists and outstanding research support. Research management is a distinct profession at ISTA, where experts craft and steer processes and are co-architects of the Institute's success story.

Founded in 2006 and operational since 2009, the Institute is dedicated to fundamental research in the natural sciences, mathematics, and computer science. ISTA offers tenure-track positions to its faculty and hosts postdoctoral researchers and PhD students in its graduate school. It advances curiosity-driven research, retains discovery rights, promotes application, and connects science with society.

Covering topics from quantum mechanics (pp. 10-11) to AI (pp. 12-13), climate (pp. 14-15), and many more, ISTA thrives on interdisciplinary collaboration. In 2025, the Institute was home to 86 faculty members, with its state-of-the-art campus continuing to expand rapidly, aiming to reach around 150 research groups and more than 2,000 employees by 2036.

- ISTA's Commitment**
- Brave Science for a Brighter Tomorrow
 - Fierce Empowerment for Personal Growth
 - Collaborative Work for Meaningful Progress
- Core Missions**
- Perform World-Class Research
 - Implement Best Practices in Science Management
 - Promote Science Education and Tech Transfer
 - Train the Next Generation of Scientific Leaders

SUPPORTERS

Advocates for Science

ISTA's research funding rests on three complementary pillars: base funding, competitive public grants, and private funding.

Three complementary pillars of funding sustain the Institute. The first pillar is base funding from the Austrian Federal Government and from Lower Austria, securing the budget until 2036 and ensuring long-term planning security. The second pillar involves competitive third-party funding from public research organizations. About one-third of ISTA's budget depends on acquiring these funds, including grants from the Austrian Science Fund (FWF) and the European

Research Council (ERC), and meeting performance targets. The third pillar is private funding, which includes both philanthropic contributions and foundation-based funding. Depending on their structure, these may take the form of donations or competitively awarded foundation grants.

In 2025, the NOMIS Foundation, a long-standing strategic partner, announced a 20-million-euro grant program starting in 2026 for innovative projects. Also, US philanthropist Daniel V. Tierney, founder of Wicklow Capital, contributed over one million euros to support a fellowship program at ISTA (p. 19).

Other supporters include Verbund AG, which enabled the Verbund Professorship for Energy Science held by Maria Ibáñez through an original donation of five million euros. The Werner Siemens Foundation supports the Werner Siemens Thermoelectric Laboratory, led by Professor Ibáñez, through a dedicated multi-year commitment of an eight-million-euro grant. The Chan Zuckerberg Initiative collaborates with Assistant Professor Francesco Locatello within its AI Residency Program to advance research on virtual cells as models for human health and disease.

A landmark contribution came from entrepreneur Magdalena Walz, who left 25 million euros to ISTA in 2021, establishing the Magdalena Walz Professorship for Life Sciences, held by neuroscientist Peter Jonas.

ISTA Donors Club*

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|--------------------------------|-------------------------------|-----------------------------|
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*Donors are recognized in chronological order of their initial engagement with ISTA.

Strategic Funding Partners**



**Partners are presented to reflect the range and strategic depth of ISTA's collaborations.

FACULTY DIALOGUE

Bridging Minds: Two Paths, One Motivation

Professor Mario de Bono (left) and Assistant Professor Amelia Douglass (right) met at the VISTA Science Experience Center and strolled through the “Science in the Making” exhibition.



Assistant Professor Amelia Douglass and Dean of the Graduate School Mario de Bono discuss their research, mentoring young scientists, and the importance of being in the moment.

Amelia Douglass: Hi, Mario. Isn't it great to have a new café at ISTA for a quick break and chat?

Mario de Bono: Absolutely, Amelia. If you could have coffee with anyone, who would it be?

Amelia: I'd choose Jane Goodall. What about you?

Mario: Francis Crick. I'd love to chat with him about understanding the brain.

Amelia: The brain is such a complex puzzle. We're mapping out brain regions, trying to identify neurons, genes, and proteins. Sometimes we don't really know what to do with the information.

Mario: I really hope we are not just “stamp collecting.” I suspect not—we are drawing maps, whose utility will last long into the future.

Amelia: What do you think of integrating AI in that data hunt?

Mario: I work on a transparent roundworm called *C. elegans*. Its whole nervous system is mapped out, and we know all the connections each neuron makes. Computational neuroscientists are eager to solve this animal. However, they soon realize it's not trivial—it's very complex. It's similar to what is going on with AI and the mouse brain, right?

Amelia: AI offers huge potential. It's not only understanding neural activity, but also things that the brain produces, like behavior. AI is beginning to help in making sense of the brain's output. For example, my research group tries to get a holistic view of how the brain “talks” to the internal organs to control the body in response to threats. For this, we are focusing on the hypothalamus—a specific brain region.

Mario: In my research group, we're investigating similar stress response circuits by using the *C. elegans* nervous system to study basic neural mechanisms and their roles in

regulating behavior and physiology. Understanding how worms respond to stress is a key goal. Conceptually, this is a similar problem for worms and mice. You just came to ISTA, how do you find yourself after your first couple of months?

Amelia: Great. I'm happy to be here. My lab is finished. I just don't get enough exercise, as my office is right next to my lab.

Mario: You could start cycling. I started biking to the lab during my PhD in Cambridge, and I've never really let go of the habit. Now I'm cycling to ISTA from home almost every day. It's a great way to clear the mind and get exercise.

Amelia: I can imagine. This year, you became the Dean of the Graduate School, succeeding Eva Benková. How are you finding this new role?

Mario: It's a real opportunity to connect with colleagues and explore how we can further improve the

Institute. We're focusing on refining our curriculum and encouraging interdisciplinary conversations.

Amelia: Yes, my students were telling me about some of the courses they have, for instance, explaining their projects to other students completely outside their field in short chalkboard talks. I think that's really helpful for our students. I've experienced that challenge myself, especially when interviewing for faculty positions in front of non-neuroscientists. We are all speaking different scientific languages.

Mario: Absolutely. We're also figuring out ways to work with XISTA to leverage those industry links. We want to encourage students to be creative both in and beyond their PhD projects.

Amelia: What's the percentage of our students staying in academia?

Mario: 50 percent. So, half of them will pursue careers outside academic science and will help shape the industries of the future. Speaking of students, have you found your groove in leading a group of scientists?

Amelia: It's the first research group I'm leading, so I'm finding my style. It will really depend on what my students need from me. I've tried to keep that line of communication open.

Mario: It's a continuous learning process and requires different approaches for different people.

Amelia: Definitely. If you could advise teenage Mario, what would you tell him?

Mario: I'd still be a scientist. I'd equip myself much better, however, by focusing much more on maths and computer programming. I'd really push myself beyond my comfort zone. How about you?

Amelia: Similarly, I'd focus more on math and coding. I'd also tell myself, and of course, my teenage self wouldn't listen, to enjoy yourself, despite how flippant it sounds. Each of my career stages brought its stresses. Being in the moment certainly helps, and not worrying too much does not make you less productive.

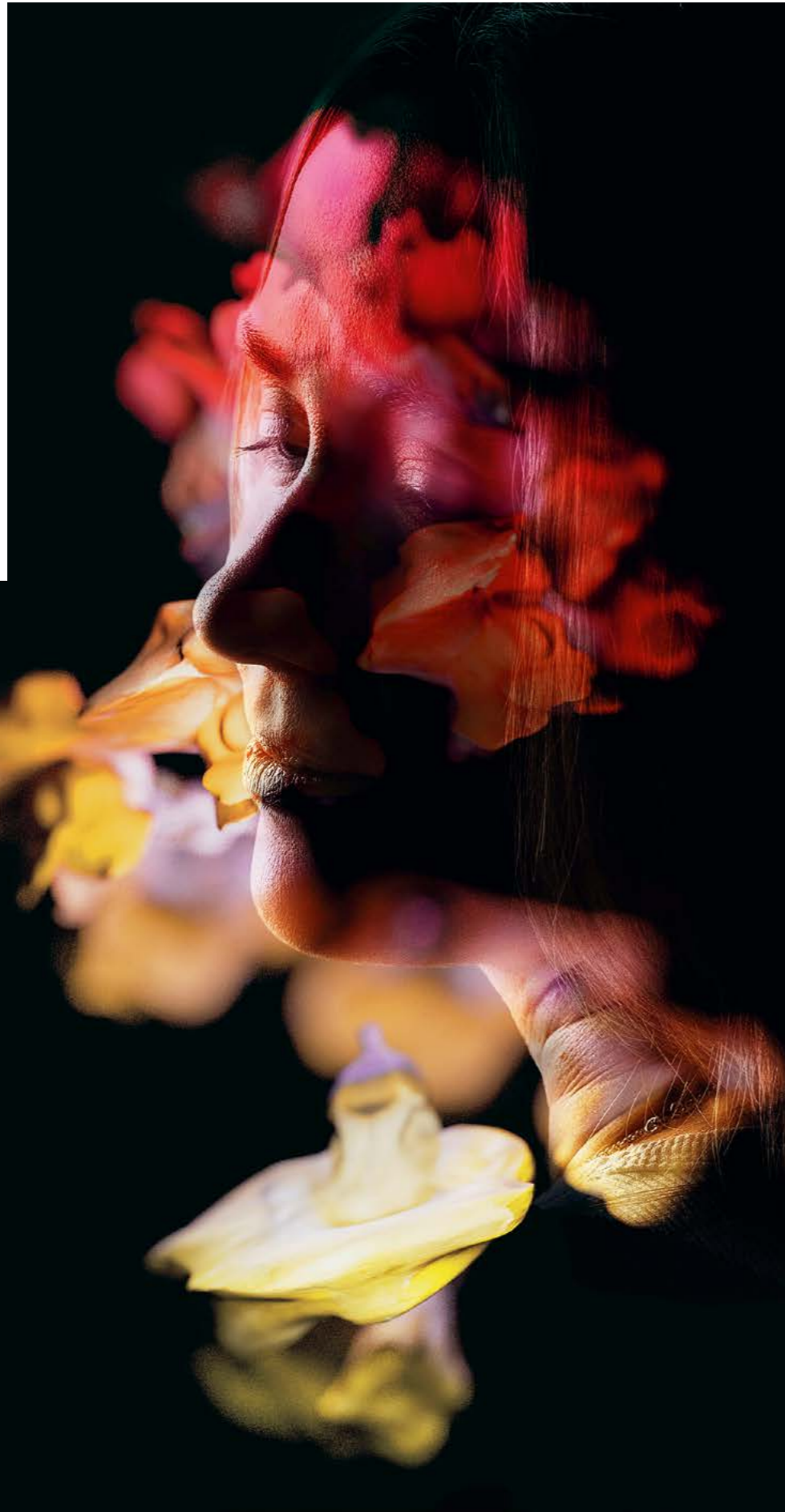
Mario: You're so right. I'm fortunate in being an optimist. I've always assumed that it would work out. It may be that I've been lucky in that regard. But I think a little bit of worrying keeps us sharp.

Amelia: Balance is key, you know, like Master Oogway in Kung Fu Panda said, “Yesterday is history, tomorrow is a mystery, but today is a gift. That's why it's called the present!”

Daria Shipilina

Postdoc in the Barton group

It is hard to imagine Daria without nature, whether she is on a field trip to discover painted lady butterflies or collecting snapdragons in the Pyrenees. The researcher is fascinated not only by their external beauty but also by their intrinsic attributes, which she explores through genetic analyses. The varying colors of the snapdragons, in particular, remain a scientific mystery. The portrait was created in collaboration with Process Studio. Their screen grab of a snapdragon originates from the video installation *"The Hybrid Zone,"* which is featured in the exhibition "Science in the Making" at the VISTA Science Experience Center.



Thomas Shaw

Postdoc in the Pellicciotti group

When asked which fascination came first, the mountains or research, Thomas takes a moment to ponder. What he knows for certain is his deep love for both. Eagerly, he awaits his next adventure to the world's mountain regions, where he collects data to input into atmospheric model simulations, trying to understand the cooling effect of glaciers.

RESEARCH HIGHLIGHTS

100 Years and 'Quanting'

The UN declared 2025 the International Year of Quantum Science and Technology. In its honor, we recap some of this year's quantum advancements at ISTA.

In 1925, Werner Heisenberg advanced atomic theory, sparking the modern era of quantum mechanics with a publication in *Zeitschrift für Physik*. A century later, ISTA scientists advance quantum research, from theory to device implementations.

A sky full of (quantum) scars
Quantum many-body scars, once thought to only occur in specific models, might be more common. In a theoretical framework, researchers from Maksym Serbyn's group demonstrated new forms of quantum scars, which could be an

important resource for future quantum computation.

Meanwhile, PhD student Elena Petrova and quantum theorists from the Serbyn group collaborated with classical physicists from the Hof group. They developed an algorithm

to find the many-body scars using classical equations of motion. "Quantum theory and classical physics tick very differently. But we could link the two fields," says Serbyn.

The shadow of an electron

Quantum computers will eventually surpass classical ones in certain tasks. Georgios Katsaros' group pays particular attention to the intriguing physics of special qubits—the fundamental units of quantum information—generated in the semiconductor germanium. They explore how magnetic and electric fields influence these "hole spin qubits" to improve quantum processors. "Finding the parameters that influence the spins' alignment will help us better control the quantum states in the qubits. Ultimately, this is what will allow them to perform quantum computation," says ISTA alum Jaime Saez-Mollejo.

Towards a future optics-based quantum internet?

Large-scale quantum computation will likely rely on distributed quantum computing across multiple

processors and a quantum internet. However, these approaches are based on superconducting qubits that use electrical signals at ultracold temperatures. This makes room-temperature connections problematic.

This year, a team of physicists from Johannes Fink's group has achieved a fully optical readout of superconducting qubits, pushing the technology beyond its current limitations. The key to this: an electro-optic transducer—a switch that can 'translate' the optical signal into a microwave frequency (an electrical signal that the qubits can understand). This could lay the groundwork for a room-temperature optical fiber-linked quantum computer network. **I**

Publications:

Kerschbaumer A. et al. 2025. **Quantum Many-Body Scars beyond the PXP model in Rydberg simulators.** *Physical Review Letters*.

Petrova E. et al. 2025. **Finding periodic orbits in projected quantum many-body dynamics.** *PRX Quantum*.

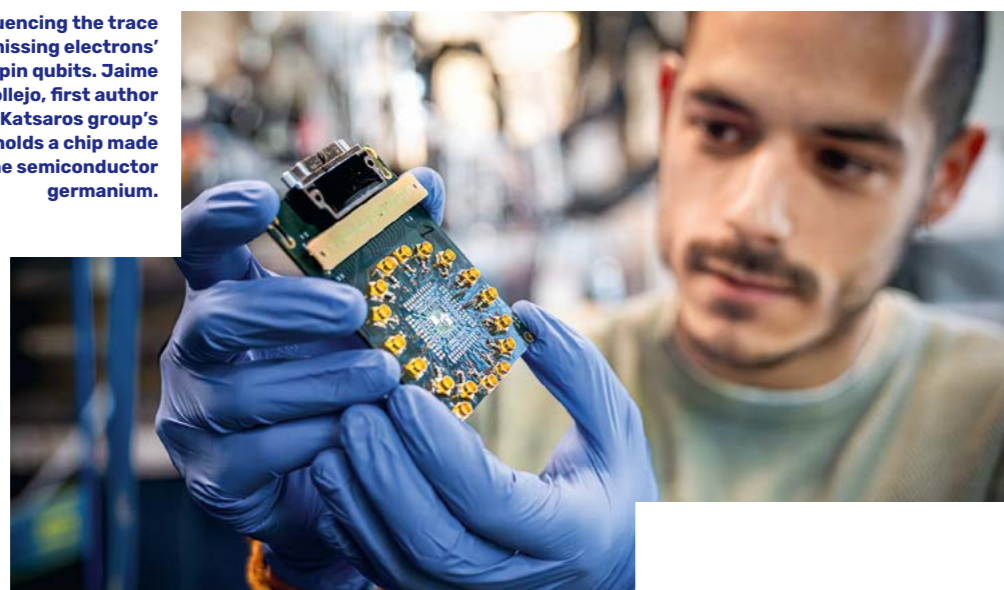
Saez-Mollejo J. et al. 2025. **Exchange anisotropies in microwave-driven singlet-triplet qubits.** *Nature Communications*.

Arnold G. et al. 2025. **All-optical superconducting qubit readout.** *Nature Physics*.



Classical solutions to quantum problems. Gökhan Yalnız (left), Maksym Serbyn (middle), and Elena Petrova (right) found hidden quantum many-body scars with the help of classical equations of motion.

Influencing the trace of 'missing electrons' in spin qubits. Jaime Saez-Mollejo, first author of the Katsaros group's paper, holds a chip made of the semiconductor germanium.



RESEARCH HIGHLIGHTS

A Dynamic Hub for AI Research

ISTA's scientists propel AI research by enhancing protein structure prediction, data privacy, climate research, and microscopy, all while partnering with colleagues around the world.

Artificial intelligence has become an integral part of our daily lives and significantly aids scientific endeavors. At ISTA, researchers are diligently striving to further develop these technologies.

From structure prediction to data privacy

The 2024 Nobel Prize in Chemistry highlights the impact of AlphaFold, an AI program that predicts 3D protein structures. AlphaFold3 extends to protein complexes, including DNA, RNA, ligands, and ions, but sometimes oversimplifies these structures and ignores

experimental conditions. This year, researchers from the Bronstein and Schanda groups developed a method to 'guide' AlphaFold3 to match experimental data, paving the way for models to capture protein structures more accurately.

Addressing privacy and performance in deep learning, PhD student Simone Bombari and Professor Marco Mondelli challenged the notion that larger models compromise privacy. Their research showed that guaranteed privacy in larger models does not 'cost' more.

Climate, microscopes, and formalizing (machine) learning

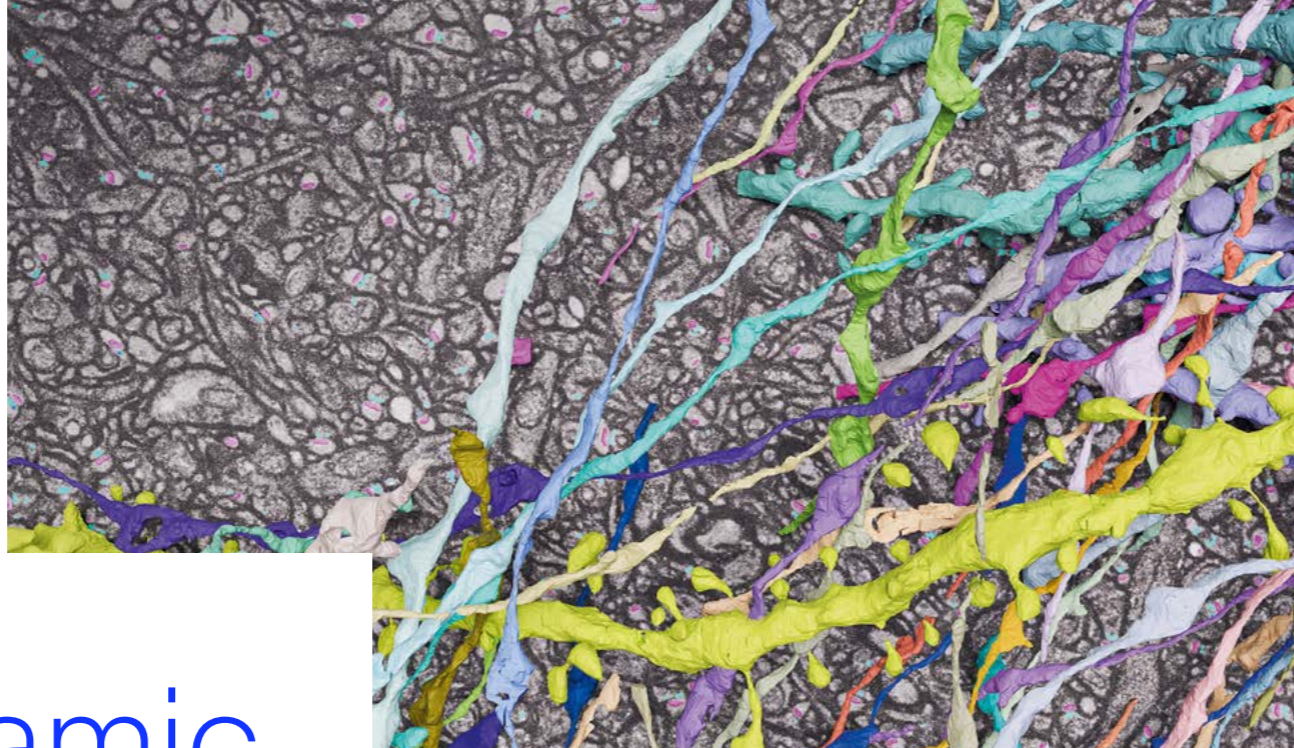
Multiple groups use AI to answer questions in various research domains. The Pellicciotti and Muller groups use AI for climate modeling, revealing insights into glacier health (pp. 14-15) and atmospheric movements.

The Danzl group, in collaboration with Google Research, developed LICONN, a method that enhances brain tissue imaging using AI, hydrogel tissue extension, and accessible microscopes.

The Goodrich group explored the theory behind AI learning models using amorphous solids, advancing the understanding of AI and machine learning. Their work aids in applications like generative AI and formalizing learning systems.

Collaborations and modern infrastructure

ISTA also hosts the ELLIS Unit Vienna, led by Professor Christoph Lampert, which fosters machine learning excellence and organizes AI-related events. The FWF Cluster of Excellence Bilateral AI connects five ISTA research groups,



Imaging data and 3D renderings of a neuronal network. LICONN allows multi-color imaging, capturing the structure of brain cells and the location of specific molecules that enable cellular function.

strengthening their research network. In 2025, a collaboration with Google was established to fund AI projects and build a presence in the XISTA Science Park. Professor Monika Henzinger's collaboration with Google focused on privacy-preserving large language model (LLM) training. Additionally, Professor Dan Alistarh's startup, acquired by Red Hat, tackles the environmental and financial costs of LLMs. [▶](#)



ISTA scientists formalize how amorphous solids learn nontrivial behaviors. A highly simplified toy model of amorphous solids helps illustrate their work.

Publications:

Maddipatla A. et al. 2025. **Experiment-guided AlphaFold3 resolves accurate protein ensembles.** *bioRxiv*.

Bombari S. & Mondelli M. 2025. **Privacy for free in the overparameterized regime.** *PNAS*.

Tavakoli M. R. et al. 2025. **Light-microscopy based dense connectomic reconstruction of mammalian brain tissue.** *Nature*.

Zu M. et al. 2025. **Fully independent response in disordered solids.** *Physical Review Letters*.

Pillutla K. et al. 2025. **Correlated Noise Mechanisms for Differentially Private Learning.** *arXiv*.

RESEARCH HIGHLIGHTS

Achille Jouberton walks with the field team towards Kyzylsu Glacier on its true-lateral side moraine. Northwestern Pamir mountains, central Tajikistan. September 2023.



A Fateful Century for Glaciers

In 2025, the UN championed the cause of glaciers with two declarations: the International Year of Glaciers' Preservation and World Glaciers Day.

More than two billion people rely on snowmelt and glacier runoff for water security, especially in semiarid regions like Central Asia and the Southern Andes. During droughts, glaciers help mitigate snowfall shortages. Yet, their resilience against human-driven climate change is uncertain.

The tipping of the last resilient glaciers

The northwestern Pamir Mountains in Tajikistan once hosted stable glaciers, but they have been data-deficient for years. Francesca Pellicciotti's group collaborated internationally to set up climate stations at the Kyzylsu Glacier. They modelled its changes over more than two decades, identifying a tipping point in 2018. Since then, the glacier has started losing mass due to the decreased snowfall, rejoining the global trend. The region's data remains sparse; however, this research is an initial step in the right direction towards glacier dynamics in the Pamir.

What is the situation around the globe?

Destined to melt

Global temperatures rise steadily, but glaciers lag because they cool the air around them. ISTA researchers found that this cooling effect is likely to reach its peak in the 2030s. Afterward, the glaciers' melting and fragmentation will intensify, and their near-surface temperatures will rise more rapidly, hastening their decline.

In addition to these challenges, the Pellicciotti group is also investigating a new threat: mega-droughts.

Will megadroughts vanquish the glaciers?

In Chile, 15 years of severe and persistent drought have depleted water resources without warning. Such megadroughts were unanticipated by climate models.

Together with international researchers, Pellicciotti modeled a future scenario based on the ongoing Chilean megadrought, focusing on the glaciers in the Southern Andes that are buffering the ongoing megadrought at the cost of their own survival. If a similar drought

Cool winds flowing over the Tsanteleina Glacier in Italy, August 2015.



occurs by century's end, the remaining glaciers may provide only half of today's meltwater.

This evidence from around the world once again underlines the need for coordinated global climate policies to develop effective water management strategies. █

Publications:

Jouberton A. et al. 2025. **Snowfall decrease in recent years undermines glacier health and meltwater resources in the Northwestern Pamirs.** *Communications Earth & Environment.*

Shaw T. E. et al. 2025. **Mountain Glaciers will Recouple to Atmospheric Warming Over the 21st Century.** *Nature Climate Change.*

Ayala Á. et al. 2025. **Less water from glaciers during future megadroughts in the Southern Andes.** *Communications Earth & Environment.*



Tapado Glacier in an arid landscape of the Southern Andes, Chile. The sharp spikes of snow and ice are typical of dry mountain regions. Meltwater streams pour from the glacier.

VISTA

Science in the Making

The VISTA Science Experience Center promotes dialogue between science and society. Its first exhibition offers a glimpse into how science unfolds in the 21st century.

In September 2025, the VISTA Science Experience Center on the ISTA campus officially opened its doors during a vibrant three-day opening festival under the motto, “Hello Science! Hello VISTA!” The event offered special tours, talks, and panel discussions, workshops, science slams, live music, DJ sets, and light installations to more than 3,600 visitors. It was a special moment for Gaia Novarino, Vice President for Science Education; Christian Bertsch, Head of Science Education; and the entire campus community, seeing a bold idea turn into reality.

The exhibition
Upon entering the VISTA Science Experience Center, multimedia installations arranged in a semi-circle—rotating, screens—tell the story of the Campus, its research areas, and its community. The smell of freshly brewed coffee fills the air as visitors and researchers from the Institute gather at the VISTA Coffee Lab.

“We communicate science not as a collection of facts, but as a dynamic process shaped by questions, creativity, and collaboration. This creates a deeper understanding of informed trust in modern science,” explains Bertsch about VISTA’s mission.

Besides an auditorium and workshop spaces, the heart of the visitor center is a 500 m² gallery space with 50 unique exhibits—connecting art, science, and technology—that bring the diversity and dynamism of science to life.



The official opening of the VISTA Science Experience Center.

VISTA Opening Festival
“Hello Science! Hello VISTA!”



“Science in the Making” is the first exhibition at the VISTA Science Experience Center, developed by the curators at ISTA together with artists, designers, and researchers.

In its first exhibition, “Science in the Making,” visitors learn, for example, how to train AI through networks. They playfully explore how machine learning helps test hypotheses, accelerates ideas, but also raises ethical questions.

Visitors also learn how diverse data collection is: from botanical field studies in the Pyrenees to excursions to the glaciers in the Central Asian Pamir Mountains, to space, where telescopes are used to look into the cosmos.

One of the many highlights is the installation “Homo Insectus” by the artist duo Laurent Mignonneau and Christa Sommerer. These pioneers in the field of art and science visualize the tension between humans and machines with an interface upon which digital ants replicate the body of the person viewing it.

Novarino hopes visitors leave with two key impressions: First, that everyone is able to grasp that

scientists at ISTA are not giving ultimate answers, but in the process of exploring and comprehending the world around us. Second, that people feel excited and intrigued when leaving the exhibition and think, “Wow, this was really cool!”

The VISTA Science Experience Center at the ISTA campus is a place where exchange and encounters with science take center stage. Every exhibition visit is personally guided by dedicated science mediators and is free of charge. Moreover, VISTA provides an extensive array of workshops, talks, and “Meet a Scientist” sessions.

GRADUATE SCHOOL

“Let Your Curiosity Guide You!”

The Graduate School at ISTA encourages students to evolve through a vibrant community and interdisciplinary learning.

In 2025, the Graduate School at ISTA welcomed 79 new PhD candidates from 32 countries, and saw 60 students graduate, highlighting the Institute’s growing global reputation as a hub for cutting-edge research.

Cultivating collaboration

The Graduate School’s rotation system allows candidates to explore three or more research groups in their first year. This fosters an interdisciplinary perspective and helps students identify questions that spark their interest. The PhD program incorporates study track-specific courses and mandatory interdisciplinary communication training. Students with diverse backgrounds learn how to communicate across disciplines by working in small groups, explaining their research to students outside their field. The goal is to understand the limits of one’s own discipline and to think beyond it. This also strengthens the community and lays the foundation for future collaboration by provoking interdisciplinary thinking.

Providing a support system

The students are supported by world-class faculty, state-of-the-art facilities and equipment, skills training, attractive salaries, and dedicated staff. ISTA has no tuition fees. Beyond their research, students can unwind at ISTA-organized social events, such as the ArtLab, which allows participants to explore their creativity through art. The student association, AURAS, connects and represents students, contributing to everyone feeling included, valued, and heard. Given the Institute’s proximity to Vienna and the Vienna Woods, there are numerous leisure activities available.

“One of the best parts of my PhD has been the friendships I’ve built within my cohort,” says Peipeng Lin, who is part of the Jonas group

and studies how neurons communicate. “We celebrate each other’s successes, and we are there to listen or offer a shoulder when things get rough. Many of my friends have since graduated and moved on, but I know these friendships will last a lifetime.”



PhD students Peipeng Lin (left) and Priyansha Verma (right) discuss their experiment in the lab.



ISTA and Google launched a research collaboration in June 2025, with the tech giant establishing a presence at the XISTA Science Park.

TECHNOLOGY TRANSFER

Turning Discovery into Industry Impact

XISTA: ISTA’s platform for translating scientific discoveries into real-world solutions.

Through its pillars—XISTA Innovation, XISTA Science Ventures, and the XISTA Science Park—founders receive support, capital, and lab space needed to build and scale deep-tech companies. In 2025, XISTA added new roles in venture building, operations, intellectual property, and communications to enhance internal capacity for evaluating opportunities, supporting early business formation, and guiding technologies from discovery to market. Construction also began on a new building to expand lab space at the XISTA Science Park.

Google joins ecosystem

A key milestone was the launch of a collaboration between ISTA and Google focused on AI, advanced algorithms, and neuroimaging for medical research. By establishing a

presence at the XISTA Science Park, the tech giant is now embedded directly in XISTA’s research-to-innovation pipeline.

EIC Trusted Investors Network

XISTA further strengthened its position in the innovation community by joining the European Innovation Council (EIC) Trusted Investors Network, aligning with around 100 leading investors focused on scaling deep-tech ventures.

Wicklow Fellowship

ISTA PhD student Jen Iofinova, whose research aims to develop private and personal AI that captures a user’s own voice while keeping sensitive data secure on local devices, was named the first Translational Fellow. Funded by over one million euros from US-based

Portfolio highlights

Neural Magic: The AI startup with roots at ISTA and MIT, was acquired by US software company Red Hat, a leading provider of open-source solutions, becoming the first startup to collaborate with ISTA and successfully achieve a major exit.

Syntropic Medical: Moved forward with its non-invasive approach to treat major depressive disorder. Following the launch of its first in-patient study, the company received approval for a second, home-based feasibility trial in collaboration with NYU Langone Health in the US.

Ribbon Bio: The DNA synthesis company founded by ISTA alum Harold de Vladar opened its first commercial synthetic DNA production facility in Vienna.

Wicklow Capital, the fellowship gives researchers the time, mentorship, and financial support to explore their work’s translational potential.

