

PRESS RELEASE

SISSA 2024/25: new ERC funding and leading role in artificial intelligence open 46th academic year

Developmental biologist Detlev Arendt inspires the opening ceremony of the Trieste-based institute with his *Lectio Magistralis* on the evolution of the nervous system.



Trieste, 22 November 2024

“The 46th academic year of SISSA opens with a focus on advanced education, basic research, and innovation, in a complex international context.” With these words, Andrea Romanino, Director of the Scuola Internazionale Superiore di Studi Avanzati (SISSA), kicked off the opening ceremony of the Trieste-based institute this morning. “Through global collaborations and cutting-edge projects,” Romanino continued, “we aim to remain a place where scientific curiosity and interdisciplinary dialogue foster progress, advancing knowledge, ethics, and competitiveness. Examples of this commitment include joining the prestigious AI Alliance, launching the new Master's in Data Management and Curation, investing in computational infrastructure, and securing three ERC grants this year.”

Founded in 1978, SISSA is a centre of excellence for higher education and scientific research, an inclusive and international environment where students and faculty work together daily to generate fundamental knowledge. Today, with



the opening of the 2024/2025 academic year, the institute continues its mission of promoting science, innovation, and interdisciplinary dialogue.

A commitment to safer and more inclusive Artificial Intelligence

In line with its goal of promoting curiosity and progress in the field of science, SISSA recently joined the AI Alliance, becoming the first Italian institution to be part of this global network. Co-founded by IBM and Meta, the AI Alliance brings together over 120 international organisations, including universities, research institutes, and companies, with the goal of accelerating innovation in artificial intelligence while promoting safety, inclusivity, and competitiveness, without ever compromising scientific rigour. As Director Romanino emphasised in his address, SISSA's participation in this alliance is a recognition of the quality and significance of its work in AI, as well as an important opportunity to strengthen global collaborations and expand the impact of its research.

New funding from the European Research Council

2024 has also been a particularly successful year for SISSA in securing funding from the European Research Council (ERC). Among these grants is the *Starting Grant* of €1.5 million awarded to Sebastian Goldt for the 'Beyond2' project, which aims to investigate neural networks underlying artificial intelligence. Meanwhile, Alberto Maspero received an *ERC Consolidator Grant* for the project 'Generating Unstable Dynamics in Dispersive Hamiltonian Fluids.' This project, focusing on the emergence of instabilities in fluids and the understanding of phenomena like turbulence and rogue waves, will receive approximately €1.5 million over five years.

Finally, SISSA has secured its first *ERC Synergy Grant* for a project involving the Niels Bohr Institute in Copenhagen, the University of California, Los Angeles, and the Max Planck Institute for Gravitational Physics in Potsdam. With total funding of €12 million, of which €2.8 million is designated for SISSA activities, this project will study data from gravitational wave detectors to identify potential deviations from Einstein's theory of relativity and the Standard Model of particle physics. These achievements bring the total number of ERC grants won by the School to 32, reinforcing SISSA's prominent position in scientific research. With an ERC funding rate approximately 25 times higher than the Italian average, this accomplishment is a clear indicator of the quality and impact of the research conducted at SISSA.

The Lectio Magistralis

The traditional Lectio Magistralis for the opening ceremony of the new academic year was delivered by Prof. Detlev Arendt, Senior Scientist and Group Leader in the Developmental Biology Unit at EMBL Heidelberg. In his talk, entitled 'The Origin and Evolution of the Nervous System', Prof. Arendt explored how the

study of molecular development and cellular evolution in marine animal models is providing important new insights into the origin and evolution of the nervous system. Through the analysis of species such as sponges, sea anemones and the annelid *Platynereis dumerilii*, he illustrated how ancestral neural networks gradually led to the centralisation of the nervous system, revealing fundamental features of the distant common ancestor of animals with bilateral symmetry.

Recognitions for students and staff

During the ceremony, Riccardo Iancor, head of the Student Secretariat, spoke on behalf of the technical administrative staff. On the other hand, Ludovica De Paolis spoke for the student community, emphasising the importance of an academic environment that fosters not only education and research, but also well-being and inclusiveness, with a special focus on the challenges that students face, both academically and personally.

The SISSA Opening Ceremony also served as an occasion to award the Lutman Prizes for the best PhD thesis in Mathematics and for the best thesis and product of the Master's course in Science Communication 'Franco Prattico.' In addition, prizes were awarded for the best PhD theses in Physics, Neuroscience and for the Master's course in High Performance Computing. Finally, medals for 25 years of service were awarded to the School's scientific and technical-administrative staff.

The Opening Ceremony ended with a musical performance of 'Vocalise, 14 Romances, Op. 34' by Sergei Rachmaninov, by the students of the 'Giuseppe Tartini' Conservatory of Trieste.

USEFUL LINKS

[SISSA Opening Ceremony](#)

IMAGE

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