

PRESS RELEASE

Over €5 million awarded to SISSA by the Italian Science Fund

Despite the School's small size, three projects have been funded through the most selective funding program of the Italian Ministry of University and Research (MUR). A result that once again recognises the quality of research at SISSA.



Trieste, 22 December 2025

Three grants for a total of nearly €5.5 million. This is the remarkable result achieved by SISSA through the Italian Science Fund (FIS) of the Italian Ministry of University and Research (MUR), which awarded funding to the projects led by Giovanni Bussi, Nicola Gigli, and Gianluigi Rozza in the fields of biophysics, geometric analysis, and scientific computing, respectively.

Due to the strictness of its selection process and the size of the grants awarded, the FIS is modelled on the European Research Council (ERC), the most important European funding program for scientific research, aimed at supporting scientists engaged in fundamental research. Now in its third edition, FIS 3 funded 326 excellence projects selected from more than 5,000 applications across the areas of Physical Sciences and Engineering, Life Sciences, and Social Sciences and Humanities.



The result obtained by SISSA is one of outstanding prestige, rewarding the excellence of its research and standing out even more in light of the School's extremely small faculty, which numbers fewer than one hundred members. In addition to the three projects starting in 2026, SISSA also secured a project launched in 2025 and awarded to neuroscientist Alessia Soldano under FIS 2.

Studying the structure of the influenza genome

RNAScale (RNA Dynamics across Scales: From Base Pairs to Viral Genomes) is the project led by Giovanni Bussi, awarded more than €1.8 million, and scheduled to start in early 2026 with a duration of five years. "The study aims to determine the structure of the influenza genome," explains the SISSA scientist. "This genome consists of eight RNA segments bound to proteins: studying its structure is important because it influences the correct assembly of the virus." The project will combine computer simulations with experimental work and received the highest score from the evaluation committee.

Addressing key challenges in geometry

MEGA (Modern Challenges in Geometric Analysis) is the project led by Nicola Gigli, which was awarded more than €1.6 million. The project will address key issues in modern geometric analysis, with a particular focus on Lorentzian geometry and potential applications to General Relativity. "We are also interested in problems in Riemannian signature," explains Gigli. "An important point we want to emphasise is that the Lorentzian and Riemannian worlds are closer than is usually believed: the common ground lies in Hamiltonian geometry, another topic we intend to explore." The five-year project also received the highest score from the evaluation committee.

New computational models

ROSA (Reduced Order and Surrogate Methods for Advanced Applications) is the project led by Gianluigi Rozza, which received €1.9 million to develop new advanced scientific computing methodologies aimed at producing fast, accurate, and physically reliable computational models. "Scientific computing is an essential tool for developing complex models in a wide range of application areas, from aerodynamics to biomedicine and environmental sciences," explains Rozza. "However, in industrial and highly complex applications, the challenge of balancing computational efficiency with the reliability of simulations remains." The five-year project will explore advanced techniques to overcome these challenges.

Commenting on the result, SISSA Director Andrea Romanino said: "This recognition rewards the talent of our researchers and clearly demonstrates the quality of the research carried out at SISSA. Securing three FIS grants in a single

call, given the very small size of our faculty, confirms the School's ability to make a decisive contribution to advancing the frontiers of both fundamental and applied research."

IMAGE

Credits: **SISSA**

SISSA

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