

PRESS RELEASE

The international conference on applied mathematics: in Trieste, an exceptional stage for the researchers and the industries of Friuli Venezia Giulia

From 27 February to 1 March, the international conference of the Society for Industrial and Applied Mathematics will be held in Trieste, providing a unique opportunity for researchers and the manufacturing world. SISSA is among the organisers.



Trieste, 22 February 2024

«Thanks to SIAM UQ24, North-Eastern Italy will have the opportunity to make its research and manufacturing systems known at an international level,» says Gianluigi Rozza, Full Professor in Numerical Analysis and Scientific Computing at the International School for Advanced Studies (SISSA) in Trieste and one of the co-chairs of the Organising Committee of SIAM UQ24, the sixth international conference of the Society for Industrial and Applied Mathematics (SIAM) on Uncertainty Quantification.



The event will take place in Trieste from 27 February to 1 March at the Stazione Marittima congress centre and the Savoia Excelsior Palace hotel. Over a thousand participants are expected to attend. The conference will allow representatives of leading companies and consortia, such as Danieli, Electrolux, Fincantieri, and SMACT, to meet students and researchers from all over the world. Supporters of this year's conference include the Friuli Venezia Giulia Region, SISSA and the iNEST Consortium, as well as the SISSA mathLab group, the local start-up FAST Computing and the American Statistical Association (ASA).

SIAM UQ24: a bridge between applied and industrial mathematics

SIAM UQ24 is organised in cooperation with the ASA and the German Society of Applied Mathematics and Mechanics (GAMM) and will feature over 250 appointments, including panels, workshops and minisymposia, reaching up to 24 parallel sessions. A very rich programme that will see many international authoritative experts gather in Trieste for the occasion: SIAM is the largest international organisation of applied mathematics, encompassing more than 14,000 scholars. «This year's meeting is expected to be one of the largest and most productive in the series,» says Amy Braverman, Principal Statistician at NASA's Jet Propulsion Laboratory and one of the co-chairs of the SIAM UQ24 Organising Committee. «Both the breadth and depth of the programme are extraordinary, and we expect it to lead to new research ideas, and new relationships in our community. The venue in Trieste will provide an exceptional environment to stimulate these developments.»

SIAM UQ24 will focus on Uncertainty Quantification, a discipline based on a set of mathematical methods used to establish the reliability of predictions emerging from numerical simulations of systems and processes. «Uncertainty Quantification plays a fundamental role in many areas of science and engineering» explains Sven Leyffer, president of SIAM «to estimate the average performance and variability of physical systems with unknown parameters through computational simulations.» During the days of UQ24, Trieste will stand out as a hub of international interest and relevance from a scientific as well as industrial point of view. The coming together of the worlds of scientific research and industry will be an opportunity to compare and share ideas and visions, and to make a joint effort to capture the attention of potential partners and funders.

iNEST and SISSA for applied mathematics

One of the biggest funders of UQ24 is the iNEST (Interconnected Nord-Est Innovation Ecosystem) Consortium. Supported by the PNRR (National Recovery and Resilience Plan) and funded by the European Union under the NextGenerationEU programme, the iNEST research project aims to establish a

new innovation ecosystem model based on sustainability and digital technologies. «iNEST is a unique opportunity to create and consolidate connections between Researchers, to integrate academic activity with local innovation needs, and to transfer research-generated knowledge,» says Franco Bonollo, Chairman of iNEST's Board of Directors. SIAM UQ24 offers an unprecedented opportunity to enhance cooperation between research and industry, an aspect promoted by iNEST. The "Models, Methods, Computational Technologies for Digital Twin" minisymposium is dedicated to the Consortium and will be held on Wednesday 28 February at 5 pm, in the Saturnia and Vulcania 1 rooms of the Stazione Marittima Congress Centre.

One of the founding members of iNEST is SISSA, which specifically investigates the development of digital technologies for real-time simulation and predictive maintenance of industrial processes and products. This is the subject on which the mathLab group, coordinated by Rozza, is working. Through its pivotal role within both SIAM UQ24 and iNEST, SISSA «has become a reference for scientific developments in computing and artificial intelligence,» says Rozza. The international arena allows SISSA to reach scientific communities that need greater involvement and awareness of the potential impact of their research—an added value allowing the scientific ecosystem of Friuli Venezia Giulia to attract additional financial resources.

SIAM UQ24, opening in the name of diversity

At the opening of SIAM UQ24, on 26 February, SISSA will host "The Power of Diversity in Uncertainty Quantification" event, which is intended to be «an introductory workshop to the Uncertainty Quantification, but also an occasion to raise awareness of the scientific community on the issues of inclusion, gender balance and diversity» explains Rozza. The event will involve one hundred young participants of SIAM UQ24 and is sponsored by the US National Science Foundation (NSF) and supported by the Association Women in Math (AWM).

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[Sito web di SIAM UQ24](#)

IMAGE

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