

SISSA mathLab 15: 2010–2025

Innovation is Mathematics

October 29, 2025
10:45 – 17:00

SISSA
Room 128-129

**A day to highlight the innovations driven by mathematics
in the environmental, industrial, and medical fields**

Program

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|--------------|--|--------------|---|
| 10:45 | Welcome coffee | 15:00 | Challenges for full and reduced order simulation of large scale turbulent flows
Dr. Niccolò Tonicello – SISSA mathLab Assistant Professor, iNEST Young Researcher |
| 11:15 | Institutional greetings
Prof. Antonio Lerario – SISSA Math Area Coordinator
Prof. Andrea Romanino – SISSA Director | 15:15 | Cluster-based reduced order modeling in industrial CFD
Dr. Antonio Colanera – SISSA mathLab Assistant Professor |
| 11:40 | SISSA mathLab: the journey 2010–2025
Prof. Gianluigi Rozza – SISSA mathLab Coordinator | 15:30 | Coffee Break |
| 12:20 | Mathematics and mechanics of cancer: Towards personalized clinical modeling
Dr. Davide Riccobelli – SISSA mathLab tenure-track Assistant Professor | 16:00 | Smart Structural Design for Passenger Ships
Eng. Mauro Sicchiero – Fincantieri |
| 13:00 | Networking Light Lunch
<i>Panorama Lounge 600, 6th floor</i> | 16:20 | Shape design in marine hydro-dynamics
Dr. Nicola Demo – SISSA mathLab Comp. Tech. Specialist |
| 14:00 | Computational Science in the Age of AI: Present Challenges, Future Dreams
Prof. Alfio Quarteroni – Politecnico di Milano
Online speech | 16:35 | FAST Computing: from ARGOS ERC PoC to SISSA start-up
Dr. Andrea Martini – SISSA mathLab, FAST Computing |
| 14:30 | From bifurcations to machine learning: a mathLab path
Dr. Federico Pichi – SISSA mathLab Assistant Professor, iNEST Young Researcher | 16:45 | FVG Innovation Valley
Dr. Sonia Lussi – Confindustria Alto Adriatico |
| 14:45 | Towards real-time simulations for cardiovascular digital twins
Dr. Pasquale Claudio Africa – SISSA mathLab Assistant Professor, iNEST Young Researcher | 17:00 | Conclusions |

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