SSM

Scientific Colloquia

Scuola Superiore Meridionale

Academic Year 2024-2025

Cycle: Fifth cycle of highly interdisciplinary Scientific Colloquia

Seminar program

1

How about (not a) black hole?" – black holes, horizonless imitators and light rings

Date and time: 07 November 2024 - 2:30 pm CET
Speaker(s): Carlos Herdeiro
Affiliation / role: Full Professor at "Universidade de Aveiro", Portugal

2

The power of inhibition for collective decision making in minimalistic robot swarms

Date and time: 14 November 2024 - 2:30 pm CET
Speaker(s): Andreagiovanni Reina
Affiliation / role: Centre for the Advanced Study of Collective Behaviour, University of Konstanz and Max Planck Institute of Animal Behavior, Konstanz, Germany

3

Phase transitions in the nucleus of cells

Date and time: 21 November 2024 - 2:30 pm CET
Speaker(s): Mario Nicodemi
Affiliation / role: Full Professor at the University of Naples "Federico II", Italy

4

Incorporating human behavior into network epidemic models

Date and time: 5 December 2024 - 2:30 pm CET
Speaker(s): Alessandro Rizzo
Affiliation / role: Associate Professor at Politecnico di Torino, Italy

5

Where are fluid-structure interactions?

Date and time: 12 December 2024 - 2:30 pm CET
Speaker(s): Filippo Gazzola
Affiliation / role: Full Professor at Politecnico di Milano, Italy

6

The Geometry of Random Neural Networks

Date and time: 19 December 2024 - 2:30 pm CET
Speaker(s): Domenico Marinucci
Affiliation / role: Department of Mathematics, University of Rome Tor Vergata, Italy

7

Lunar Laser Retroreflectors for ESA-ASI's Moonlight, Farside & South Pole

Date and time: 16 January 2025 - 2:30 pm CET
Speaker(s): Simone Dell'Agnello
Affiliation / role: Executive Technologist of the Italian National Institute for Nuclear Physics - Frascati National Laboratories (INFN-LNF)

8

Bridging Physics to Biomedical Sciences

Date and time: 30 January 2025 - 2:30 pm CET
Speaker(s): Carlo Altucci
Affiliation / role: Full Professor at the University of Naples "Federico II"

9

Solving distributed delay differential equations (with motivation from pharmacodynamics)

Date and time: 06 February 2025 - 2:30 pm CET
Speaker(s): Nicola Guglielmi
Affiliation / role: Chair of Numerical Analysis, Scientific Director of the Division of Mathematics - Gran Sasso Science Institute - Member of the Scientific Committee of the Istituto Nazionale di Alta Matematica, Italy

10

Emergent behaviors and collective decisions in cyber-physical-human systems

Date and time: 12 February 2025 - 2:30 pm CET
Speaker(s): Karl H. Johansson
Affiliation / role: Professor in Electrical Engineering and Computer Science, KTH Royal Institute of Technology, Stockholm, Sweden

11

Explainable Scientific Machine Learning: Theoretical and Practical Perspectives

Date and time: 20 February 2025 - 2:30 pm CET
Speaker(s): Salvatore Cuomo
Affiliation / role: Full Professor at the University of Naples "Federico II", Italy

12

Emergent dynamics of nonequilibrium systems with nonreciprocal couplings

Date and time: 27 February 2025 - 2:30 pm CET
Speaker(s): Sabine Klapp
Affiliation / role: Professor of Theoretical Physics, Technical University Berlin, Berlin, Germany

13

Nonlinear Spectral Modeling from Data

Date and time: 6 March 2025 - 2:30 pm CET
Speaker(s): George Haller
Affiliation / role: Professor Mechanical Engineering at ETH Zürich, Zürich, Switzerland

14

Large-scale photonic circuits for structured light

Date and time: 13 March 2025 - 2:30 pm CET
Speaker(s): Filippo Cardano
Affiliation / role: Associate professor, Department of Physics “Ettore Pancini”, University of Naples Federico II, Italy

15

Bridging Local and Global Universe via gravitational astrometry: The Milky Way paradigm

Date and time: 20 March 2025 - 2:30 pm CET
Speaker(s): Mariateresa Crosta
Affiliation / role: Senior Researcher INAF-OATo, Astrophysical Observatory of Turin

16

Emergent dynamics of nonequilibrium systems with nonreciprocal couplings

Date and time: 27 March 2025 - 2:30 pm CET
Speaker(s): Moti Fridman
Affiliation / role: Professor of Electrical engineering and applied physics, Faculty of Engineering, Bar Ilan University

17

Bose-Einstein Condensation and the Physics of Ultracold Atomic Gases

Date and time: 03 April 2025 - 2:30 pm CEST
Speaker(s): Sandro Stringari
Affiliation / role: Emeritus Professor, University of Trento

18

Unveiling the faintest side of the Universe: discoveries, structure and open issues on ultra-diffuse galaxies

Date and time: 08 May 2025 - 2:30 pm CEST
Speaker(s): Enrichetta Iodice
Affiliation / role: Associate professor, INAF-Astronomical Observatory of Capodimonte - Naples

19

The Strong Crystalline Field: or how to play with particle beams using tiny crystals!

Date and time: 15 May 2025 - 2:30 pm CEST
Speaker(s): Laura Bandiera
Affiliation / role: INFN Ferrara

20

The initial boundary value problem in General Relativity

Date and time: 29 May 2025 - 2:30 pm CEST
Speaker(s): Jacques Smulevici
Affiliation / role: Professor at the Laboratoire Jacques Louis-Lions, Sorbonne Université