

August 25 - September 7
Grenoble, France

ESONN'2024

European School
On Nanosciences
and Nanotechnologies

APPLICATIONS online
Open from March until May 12, 2024
www.esonn.fr

LECTURES

SESSION Quantum Science & Technology

A journey through some of the physical properties of 2D materials

Johann CORAUX, Institut Néel-CNRS / Université Grenoble Alpes

Quantum electronic transport

Clemens WINKELMANN, Université Grenoble Alpes

MOSFET physics and technology

Enrico SANGIORGI, University of Bologna

Nano-optics

Val ZWILLER, KTH Royal Institute of Technology, Stockholm & Single Quantum, Delft

Technologies of nanofabrication

Guillermo VILLANUEVA, EPFL, Lausanne

Spin Physics and Spintronics in van der Waals Heterostructures:

From Fundamentals to Applications

Stephan ROCHE, ICN2, Barcelona

Near-field microscopies

Hans Joseph HUG, EMPA, Dübendorf & University of Basel

SESSION Nano Bio Sciences

Advanced biophysics to study molecular systems

Ruud HOVIUS, EPFL, Lausanne & Joachim PIGUET, KTH Royal Institute of Technology, Stockholm

Mechanics of molecules and biological structures

Bart HOOGENBOOM, University College London

Nanostructured composite materials: from biological hard tissues to biomi-

netic and artificial systems

Elena STURM, University of Munich

Nano-oncology

Barbara STELLA, University of Torino

Pros and cons of carbon based nanomaterials / (nano)plastics may not be so fantastic!

Cyrill BUSSY, Centre for Nanotechnology in Medicine, University of Manchester

Particle-based agents for cell tracking using imaging

Mangala SRINIVAS, Université Paris Cité

Luminescence thermometry for biological applications

Erving Clayton XIMENDES, Universidad Autónoma de Madrid

COMMON

Near-field microscopies

Hans Joseph HUG, EMPA, Dübendorf & University of Basel

Round Table

Nathanne ROST & Raphaël LEVY, Univ. Sorbonne Paris Nord

Synthesis of Nanoscale Systems (Title TBC)

Bart Jan RAVOO, University of Münster

Nanotoxicology

Cyrill BUSSY, Centre for Nanotechnology in Medicine, University of Manchester



ESONN'2024 is a two-week summer school aimed at providing training for graduate students, postdoctoral and junior scientists coming from all around the world and working in the fields of Nanosciences and Nanotechnologies.

The school offers academic lectures, seminars and practicals delivered by leading experts covering different aspects on elaboration, characterization and functionalities of nano-objects

Almost half of the program is devoted to the laboratory courses, providing unique hands-on learning opportunities.



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PRACTICALS

The program emphasizes the role of numerous "hands-on" practicals held at CIME Nanotech cleanroom facilities and in more than 20 research laboratories of Grenoble.

Experiments in laboratories are presented by researchers on their current topics and are thus at the leading edge of the international research (please visit www.esonn.fr for details).