August 27 - September 9
Grenoble, France

ESONN'2023

European School On Nanosciences and Nanotechnologies

APPLICATIONS online
Open from March 01 until May 07, 2023
www.esonn.fr

ESONN'2023 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

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

LECTURES

SESSION A
Quantum electronics and technologies

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
Spintronics
Sergio VALENZUELA, Catalan Institute of Nanoscience & Nanotechnology, Barcelona
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

SESSION B
Nanophysics and chemistry - synthesis and characterization of nanomaterials for biological and medical applications

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
Engineered Nanoparticles for Modulation and Monitoring of Biological Systems
Oya TAGIT, FHNW, Institute for Chemistry and Bioanalytics, Muttenz
Assessment of the toxicity of nanomaterials - A case study: TiO2
Armelle BAEZA, Université Paris Cité
Nanostructured composite materials: from biological hard tissues to biomimetic and artificial systems
Elena STURM, University of Munich
Nano-oncology
Barbara STELLA, University of Torino

COMMON

Near-field microscopies
Hans Joseph HUG, EMPA, Dübendorf & University of Basel
Self-assembly for nanotechnologies
Wesley BROWNE, University of Groningen
Introduction to (nano) toxicology
Armelle BAEZA, Université Paris Cité
Round Table
Raphaël LEVY, Université Sorbonne Paris Nord

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 refer to the website for details).

ESONN School 20th anniversary celebration session on August 29th: keynote talks, testimonies on ESONN 20 past years, official ceremony and cocktail

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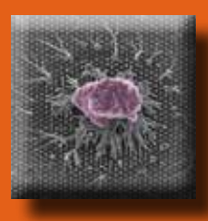

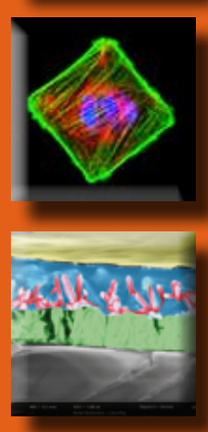

ORGANIZED BY:

UGA, Université Grenoble Alpes
Grenoble INP-UGA, Institut d'ingénierie et de management

Co-ORGANIZED BY:

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CEA, Commissariat à l'Energie Atomique et aux Energies Alternatives

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