

# Nuclear Physics meets Electronic Technology

17 - 21  
June 2024

## Main Topics

### Electronics and Devices

Introduction to electronic devices, doping, and defect-induced performance improvements. Includes high-energy particle interactions with semiconductors and radiation damage mitigation design.

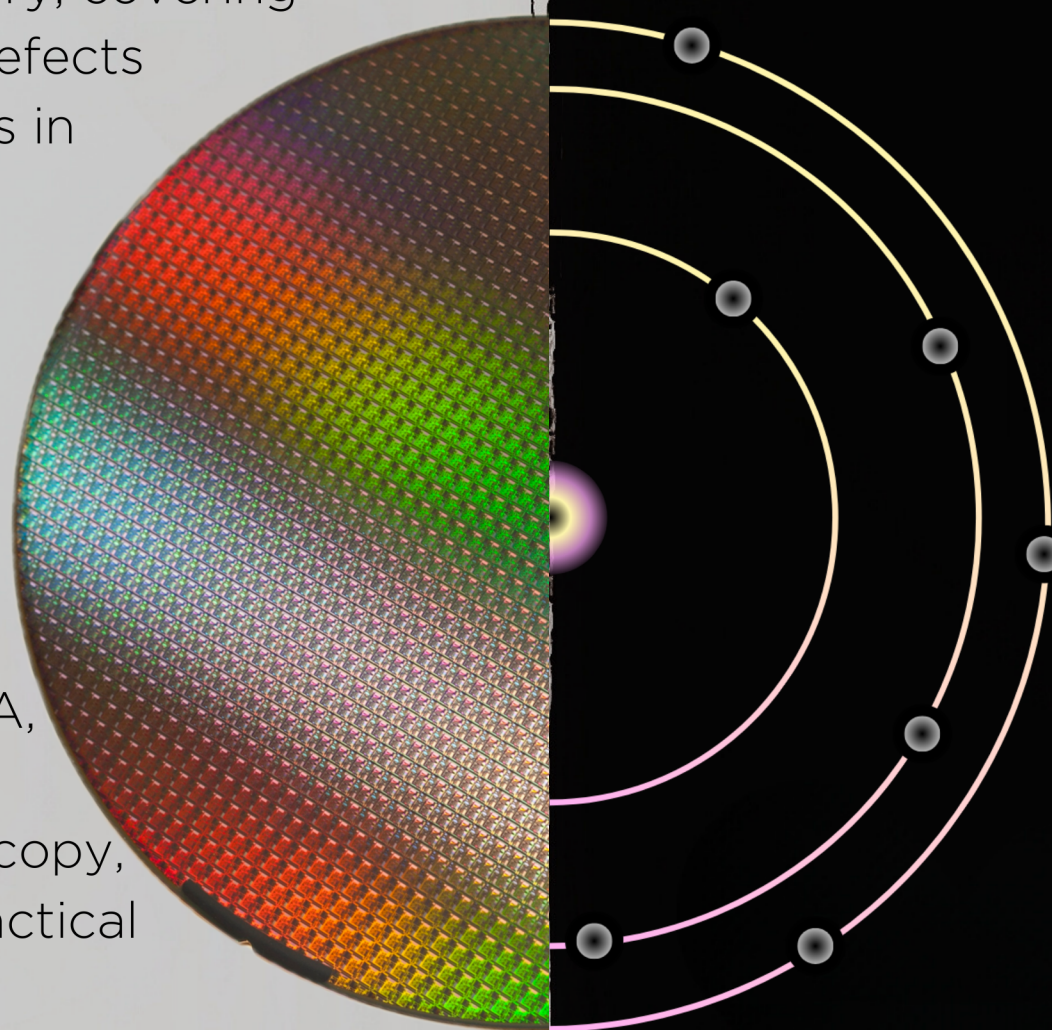
### Ion Implantation and Theory

In-depth study of ion implantation theory, covering the heavy-ion test, ionization energy, defects formation thresholds, nuclear processes in solids, chemical bonds, and electron screening.

### Nuclear Probes:

#### Theory and Experiments

Focus on nuclear and electric characterization techniques, featuring Ion Beam Analysis (SIMS, RBS, FIB, NRA, PIXE) and defect evaluation in semiconductors (Admittance Spectroscopy, DLTS, PL, EL, TPL, TRMC). Provides practical skills for advanced material analysis.



## Local Committee

**Raffaele Buompane**  
*Università della Campania & INFN-Napoli*

**Virginia Boldrini**  
*CNR-IMM Bologna*

**Nicola Casali (Chair)**  
*INFN-Roma*

**Luigi Di Benedetto**  
*Università di Salerno*

**Claudio Santonastaso**  
*Università della Campania & INFN-Napoli*

## Main organizer

# AS Be ST

A 7-Beryllium electron capture SStudy for nuclear and solid state physics

## In collaboration with



## Lecturers

**Hans-Werner Becker**

*Ruhr-Universität Bochum, Germany*

**Virginia Boldrini**

*CNR-IMM Bologna, IT*

**Massimo Chiari**

*INFN - Firenze, IT*

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## Scientific Committee

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Università La Sapienza, Roma IT   
Edificio "Fermi" - Laboratorio di Calcolo

<https://agenda.infn.it/event/38974>