

The emerging field of spin-orbitronics utilizes the relativistic spin-orbit interactions and is opening fascinating new directions for basic research and exciting potential applications in spintronics.

Directors:

N. STOJIC, ICTP, Italy
F. BONDINO, IOM-CNR, Italy

Description:

This mini workshop will cover selected spin-orbit phenomena in low-dimensional materials, comprising their potential and concrete realizations for orbitronics, mostly from the computationalmaterials perspective, but including also experimental view and results. Lowdimensional materials provide a fertile ground for generating interesting spinorbit phenomena and are also ideal for incorporation in devices. The presentations will span the range from basic features to the forefront results in the field and are targeting final-year graduate students and early-career researchers in general. The talks will include the speakers' views of the current trends, challenges and future directions in their fields.

Topics:

- Properties and potential of 2D materials for spin-orbitronics
- Skyrmions and exotic magnetism
- Spin-orbit torque

Local Organiser:

N. BINGGELI, ICTP, Italy

Speakers:

- S. BLÜGEL, Forschungszentrum Jülich, Germany
- J. FABIAN, University of Regensburg, Germnay
- P. GAMBARDELLA, ETH Zürich, Switzerland B. NIKOLIC, University of Delaware, USA
- S. PICOZZI, CNR-SPIN Chieti, Italy
- O. YAZYEV, EPFL Lausanne, Switzerland

How to apply:

Online application: http://indico.ictp.it/event/9607/

Female scientists are encouraged to apply.

Registration:

There is no registration fee.

Deadline:

24 April 2021





