

## Probing the electronic structure of solids by photoemission spectroscopy

Polina Sheverdyaeva

*Istituto di Struttura della Materia, Consiglio Nazionale delle Ricerche, Trieste, Italy*

email: [polina.sheverdyaeva@ism.cnr.it](mailto:polina.sheverdyaeva@ism.cnr.it)

Angle-resolved photoemission spectroscopy, or ARPES, explores the energy and momentum distribution of the electrons that are photoexcited from a crystalline sample by a photon source. This technique is one of the most powerful experimental methods for determining the electronic band structure of solids. In this talk, the basic concepts of photoemission will be addressed, and an overview of the variety of ARPES techniques and their potentialities will be given. Examples of ARPES studies of bulk, surfaces and low-dimensional materials will be shown, with a particular regard to the synchrotron-based ARPES.

