

Seminarium Departamentu Fizyki Materiałów

Wtorek, 27 marca 2018, godzina 11:00

Sala 223 Neutron, PNT

Dr. Astrid Schneidewind

Jülich Centre for Neutron Science JCNS

Forschungszentrum Jülich GmbH

Außenstelle am MLZ Garching

Studying magnetism with neutrons

Due to the large magnetic cross section of neutrons to the magnetic fields created by electrons in solid matter neutron scattering is an extremely powerful tool for the investigation of magnetic structures and excitations. The presentation will introduce magnetic structure determination and measurements of dynamic properties, combined with instrumental techniques to perform the experiments.

In a second part, examples will be presented about the significant impact of neutron scattering on the understanding of magnetism in strongly correlated electron systems – as there are unconventional superconductors, heavy fermion systems, multi-ferrioca or geometrical frustrated systems.