Principles and Practicals in X-Ray Scattering

Frequency
Every year

Remarque
Next time to be confirmed

Summary
This course aims at introducing PhD students and junior scientists to the various applications of modern X-ray diffraction. The course starts with a refresher on symmetry and diffraction and, subsequently, each speaker builds up on this basis and develops his/her field.

Content
- Refresher Symmetry (Gervais Chapuis)
- Refresher Diffraction (Pëtr Leiman)
- Refresher Properties of X-ray and Safety (Phil Pattison)
- Single Crystals (Kurt Schenk)
- Powders (Kurt Schenk)
- Pair Distribution Function (Radovan Cerný)
- Line Broadening (Radovan Cerný)
- Crystal Optics (Dieter Schwarzenbach)
- LAUE's Method (Gervais Chapuis)
- Raman Spectroscopy and X-ray Diffraction (Vladimir Dmitriev)
- Diffuse Scattering (Dmitry Chernsyhov)
- Neutrons (Phil Pattison)
- Synchrotron radiation (Phil Pattison)
- DEBYE-Scattering and Nanocrystals (Antonio Cervellino)
- Phase Transitions (Michel Bonin)
- Thin Films and Coatings (Antonia Neels)
- High Resolution X-Ray Diffraction (Antonia Neels)
- Electron back-scattered Diffraction (Emmanuelle Boehm-Coujault)
- Magnetic Structures (Henrik Rønnow, Oksana Zaharko)

Resources

Websites
- Plan of the course