



Protein Crystallography course for PhD students and Postdocs of the SBMP program

March 15-18th 2010

Organisation: E. Pebay-Peyroula, V. Gordeliy, S. Ravaud, V. Borshchevskiy,
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Location: IBS Grenoble, France

Participants: 8 students

The course is designed for postdocs and graduate students who are interested in protein X-ray crystallographic projects but who may not have had any formal training in the theory and practice of macromolecular crystallography.

The topics to be covered are listed below:

- crystallization of proteins (soluble and membrane proteins) – classical and *in meso* crystallization techniques
- basis of crystallography I: diffraction theory, crystal symmetry
- basis of crystallography II: X-ray data collection and phasing methods
- basis of crystallography III: model building and refinement

All these aspects will be approached by theoretical courses and by practicals. The practical part will comprise crystallization of model proteins (soluble and membrane protein), handling of crystals, data collection using synchrotron radiation source on ESRF beamline, data treatment and protein structure determination and analysis.