Soft Matter and Interfaces
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Time: Second term
3CFU -3 ECTS, divided in a theoretical part, optionally followed by an experimental part.

Program

Theoretical part
Introduction to Soft Matter: its structural and dynamical properties, the experimental techniques to investigate it, and brief reference to the theoretical tools to describe it.
Interfacial systems: from planar interfaces to bubbles, drops, emulsions and foams in increasing order of complexity.

Experimental part
One experiment chosen among the following
- Langmuir Blodgett
- Ellipsometry
- Scanning Electron Microscopy
- Atomic Force Microscopy
- Correlation Spectroscopy (Dynamic Light Scattering & Diffusing Wave Spectroscopy)
- Analysis of data from neutron reflectivity experiments

Readings from the following textbooks will be suggested:
- O. Lavrentovich, M. Kleman *Soft Matter Physics: An Introduction*