Course: Statistical Physics of Soft Matter and Biomolecules

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Requirements for participation:
Advanced Statistical Mechanics

Type of module examinations:
Oral Examination

Duration of the course:
1 semester

Aims of the course:
Understanding the molecular structure and mesoscopic properties of various types of soft matter systems, in particular with regard to their role in living cells.

Contents of the course:
- Colloids, polymers and amphiphiles
- Biopolymers and proteins
- Membranes
- Physics of the cell

Recommended literature:
J. K. G. Dhont, An Introduction to Dynamics of Colloids (Elsevier, Amsterdam, 1996).
S. A. Safran, Statistical Thermodynamics of Surfaces, Interfaces, and Membranes (Addison-Wesley, Reading, MA, 1994).