
SEMINAR FIZIČKOG ODSJEKA

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The application of neutron and X-ray scattering to soft matter systems

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I will discuss the use of neutron and X-ray scattering for the study of soft matter systems. In particular I will focus on the application of neutron reflectometry to study interfacial structuring and stability in polymeric and liquid crystal thin film multilayers, which are widely exploited for use in coatings and electronic devices, such as organic light emitting diodes (OLED) and field effect transistors (OFET) for example. I will also talk about recent rheological small-angle x-ray scattering experiments (RheoSAXS), where we have combined in situ rheology and SAXS measurements to study the effect of nanoparticle doping on the flow properties of simple water/surfactant lyotropic liquid crystals, showing how we can tune the nanometre scale structure to control the bulk properties (such as viscosity) of the material, and also some interesting biological applications.

Voditelj seminara FO
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