

The 206th MANA Seminar



The latest approaches and diverse applications
of small-angle X-ray scattering (SAXS)

Chair: Dr. Lok K. Shrestha (ICYS-MANA Researcher)

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Small-angle X-ray scattering (SAXS) is a well-established technique, which plays an important role in structural characterization on a length scale of ca. 1nm~100nm. Since many physical properties of soft nano-materials are closely linked with size, shape, and internal structure of their components, and also interparticle interactions, accurate and rapid structural characterization is highly desired. After brief introduction into theoretical aspects of scattering methods, our recent SAXS experiments on lyotropic liquid crystals, micellar solutions, protein solutions, vesicle dispersions, and hierarchically organized functionalized particles, e.g., artificial red cells and thermo-responsive microgels, are presented, aiming at intuitively showing 'what can be learnt from SAXS'. I will also discuss the relevance of our new interaction potential model-free approach, the so-called SQ-IFT, to the 'effective' or 'experimental' structure factor to yield the pair correlation functions, in which the real space picture of spatial distributions of the proteins via the interaction potential model-free route is presented.

Venue: Seminar Room #431, MANA Bldg.

Date: May 27th (Friday)

Time: 15:30-16:15

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