

Neutron scattering in soft matter

Thursday, 27 April 2023 09:30 (30 minutes)

We attempt to present a comprehensive view on the opportunities in studying structure and dynamics using neutron scattering, with a focus on soft and complex materials. We discuss in particular the combination of small-angle scattering with energy-resolved techniques (time of flight, backscattering, spin echo). We also comment on the value of complementary techniques (SAXS, IR, rheology, size exclusion chromatography, ...), which might be employed simultaneously with neutrons. Examples will be derived from work on biomolecules (M. Grimaldo et al, *Quart. Rev. Biophys.* 52 (2019) e7, 1) as well as nanoparticle systems (T. Seydel et al, *Chem. Sci.* 11 (2020) 8875).

Finally, some remarks will be made on big data challenges and solution strategies.

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