

## 物理科学ゼミナール&IROASTセミナー

# “Neutron Scattering Methods in Condensed Matter Physics, Chemistry and Materials Sciences ~A Short Introduction~”

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場所：理学部3号館2階D201大講義室

講演内容: In this lecture, I plan to introduce the basics of neutron techniques in general, and those of neutron diffraction (ND), small angle neutron scattering (SANS) and inelastic neutron scattering (INS) in particular. I will touch upon problems with instrumentation, including the various ways of generating and guiding neutron beams, and detection of scattered neutrons. A comparison with complementary experimental techniques, notably those based on synchrotron radiation, will also be provided.

I will argue that neutron scattering techniques are still unique in a number of areas, like the structure and dynamics of hydrogenous materials (such as water and aqueous solutions), magnetic structures, as well as microscopic dynamics in general. As a demonstration, in the final section of the lecture, I will show some recent examples of the use of modern neutron scattering methods.

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