

Abstract:

In this talk, we shall present some aspects of neutron scattering ray-tracing Monte-Carlo methods. More specifically, we shall start with a Monte-Carlo reminder, then introduce the McStas package [mcstas.org](http://mcstas.org) and show typical simulation components/optics pieces (guides, monochromators, detectors, choppers, samples). Then we shall focus on virtual experiments, which can reproduce real experiments. Real time use of the package will be demonstrated with a set of instruments/experiments and samples. An extension to X-ray scattering will also be presented.