

# Neutron Optics

Ken Andersen, ILL

Neutron Optics covers the handling of neutron beams, starting from the source, including the sample being studied, and ending at the neutron detectors. An overview is given of source optics – the slowing-down of the fast neutrons from the fission or spallation process in moderators, followed by the beam extraction optics. Many types of optics are then employed, which can be based on diffraction, reflection, refraction and polarisation. Monochromating techniques such as crystal diffraction and time-of-flight are also briefly covered. The aim is to give an overview of the most commonly-used tools in the neutron instrumentation toolbox.