

Conference Presentation (invited, oral)
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Title & Abstract:

Canadian involvement in the Spallation Neutron Source

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The Spallation Neutron Source (SNS), currently under construction in Oak Ridge, TN, will provide the world's most intense pulsed neutron beams. The availability of this facility in North America will enable much new science to be done with neutron scattering. In recognition of the importance of this the Canadian Foundation for Innovation has provided funding that guarantees the direct participation of Canadian researchers in SNS based science. This lecture will provide a brief and general introduction to accelerator based pulsed neutron sources and the SNS in particular. There will be an examination of time of flight methods for neutron diffraction and inelastic neutron scattering, and a discussion of the overlap and complementarity of experiments carried out using pulsed or continuous neutron sources. Finally there will be a detailed look at two planned instruments with Canadian involvement: the residual stress spectrometer VULCAN and the high resolution chopper spectrometer SEQUOIA.