



Polarized Neutron Capabilities at ORNL

Thursday, August 3, 2017

Organizers:

Barry Winn (winnbl@ornl.gov), Ovi Garlea (garleao@ornl.gov),
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The workshop includes a series of lectures on a broad range of scattering applications, either available for user program experiments or under development, using polarized neutrons. Techniques include half-polarized neutron scattering, 3D polarization analysis, Larmor precession techniques for enhanced resolution, and dynamic nuclear polarization. An introduction to how to use these techniques is accompanied by a survey of what is available at ORNL and some examples of recent results, to reveal how these techniques may impact your own research. In addition, at the end of the workshop, you will have the opportunity to either tour HFIR with a targeted tour, or participate in a demonstration experiment at the direct geometry spectrometer HYSPEC at the SNS using polarized neutron scattering.

Agenda as of July 31, 2017

SHUG Satellite Workshop 7: Polarized Neutron Capabilities at ORNL

Thursday, August 3, 2017

Oak Ridge National Laboratory
 Spallation Neutron Source, Building 8600, Iran Thomas Auditorium

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Time	Event/Activity	Speaker
8:00am – 8:30am	Registration and coffee	
8:30am – 9:15am	Welcome & Introduction to polarized neutrons	B. Winn
9:15am – 9:45am	Half Polarized experiments on Powders at HYSPEC, WAND and the Powder Diffractometer	O. Garlea
9:45am – 10:15am	Polarized Single Crystal Diffraction	H. Cao
10:15am – 10:30am	Coffee Break	
10:30am – 10:50am	Polarized SANS & CryoCUP	T. (Radian) Wang
10:50am – 11:10am	Magnetism Reflectometer	V. Lauter
11:10am – 11:35am	3D Polarization experiments at PTAX, both elastic and inelastic	M. Matsuda
11:35am – 12:00pm	3D polarization analysis using Time of Flight spectrometers	B. Winn
12:00pm – 1:00pm	Lunch on your own!	
1:00pm – 1:30pm	Polarized Neutron Imaging	I. Dhiman

Time	Event/Activity	Speaker
1:30pm – 2:00pm	Polarization for High Resolution, and Recent Results from Neutron Spin Echo	P. Zolnierczuk
2:00pm – 2:30pm	Ultrahigh-resolution spectroscopy using superconducting Wollaston prisms at a TAX at HFIR	J. Fernandez-Baca, F. Li
2:30pm – 3:00pm	Coherent Hydrogen Contrast for Single Crystal Diffraction: Dynamic Nuclear Polarization at IMAGINE	J. Pierce
3:00pm – 3:15pm	Coffee Break	
3:15pm – 3:45pm	Overview of Polarization Optics and SEOP capabilities now and in development	P. Jiang
3:45pm – 4:15pm	Developments in Precession Optics	L. Crow