

Polarized Neutron Diffraction and Spectroscopy: Applications to Quantum Materials

Spallation Neutron Source - Oak Ridge National Laboratory, Building 8600, C-156

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Tuesday, September 17, 2019

Time	Event	Presenter	Place
8:30 - 9:00 AM	Registration		Atrium
9:00 - 9:15 AM	Welcome	Mark Lumsden (ORNL)	C156
9:15 - 9:30 AM	Workshop Overview	Barry Winn (ORNL)	C156
9:30 - 10:15 AM	General Introduction to neutron polarization technique: polarization components and overview of applications (I)	Roger Pynn (Indiana University)	C156
10:15 - 10:30 AM	Coffee Break		C150
10:30 - 11:15 AM	General Introduction to neutron polarization technique: polarization components and overview of applications (II)	Roger Pynn (Indiana University)	C156
11:15 AM - 12:00	Half-polarization diffraction and inelastic scattering techniques	Ovidiu Garlea (ORNL).	C156
12:00 - 1:00 PM	Working Lunch: "Overview of polarization capabilities at ORNL"	Barry Winn (ORNL)	C156
1:00 - 1:30 PM	Lunch Break & On-site classroom radiological worker practical factors evaluation (PFE)	RCT	
1:30 - 2:15 PM	Polarized neutron diffraction at HB3A / Atomic magnetic susceptibility method	Huibo Cao (ORNL)	C156
2:15 - 3:00 PM	Linear- polarization analysis using triple axis spectrometers	Masaaki Matsuda (ORNL)	C156
3:00 - 3:45 PM	Neutron polarization analysis on multi-detector instruments	Ross Stewart (ISIS, STFC, UK)	C156
3:45 - 4:00 PM	Coffee Break		C156
4:00 - 4:45 PM	Examples of studies of diffuse magnetic scattering from frustrated magnets	Ross Stewart (ISIS, STFC, UK)	C156
4:45 - 5:30 PM	Science opportunities using the neutron polarization analysis at HYSPEC (I)	Igor Zaliznyak (BNL)	C156

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5:30 - 5:45 PM	Break		C156
5:45 - 6:30 PM	Science opportunities using the neutron polarization analysis at HYSPEC (II)	Igor Zaliznyak (BNL)	C156

Wednesday, September 18, 2019

8:30 - 9:00 AM	Breakfast snack		C156
9:00 - 10:00 AM	Spherical Neutron Polarimetry technique and its application to condensed matter physics	Marc Janoschek (PSI)	C156
10:00 - 10:45 AM	Development of Spherical Neutron Polarimetry at ORNL	Peter Jiang (ORNL)	C156
10:45 – 11:00 AM	Coffee Break		C156
11:00 – 11:45 AM	Ultrahigh-resolution diffraction and spectroscopy using superconducting Wollaston prisms at a TAX at HFIR	Fankang Li (ORNL)	C156
11:45 – 12:30	Workflow in polarized TOF data reduction using Mantid package	Andrei Savici (ORNL)	C156
12:30-1:30pm	Working Lunch: Practical consideration for planning polarized measurements at HYPEC	Barry Winn (ORNL)	C156
1:30-5:30pm	Group A: Hands-on polarized INS experiment at HYSPEC	Ovi Garlea, Barry Winn, Melissa Graves-Brook, (ORNL)	HYSPEC (BL14B)
	Group B: Processing TOF polarized data using Mantid,	Igor Zaliznyak (BNL) Andrei Savici (ORNL)	C156
	Group C: Tour of HFIR beam room and discussions. Practical considerations of polarization configurations at HB1 and HB3a instrument	Masa Matsuda, Huibo Cao (ORNL)	HFIR
5:30 -7:00 PM	Poster session and on-site dinner, SNS lobby		Atrium

Thursday, September 19, 2019

8:00-8:30 am	Breakfast snack		C156
8:30-12:30 PM	Group C: Hands-on polarized INS experiment at HYSPEC	Ovi Garlea, Barry Winn, Melissa Graves-Brook (ORNL)	BL14B
	Group A: Processing TOF polarized data using Mantid,	Igor Zaliznyak (BNL), Andrei Savici (ORNL)	C156
	Group B: Tour of HFIR beam room and discussions. Practical considerations of polarization configurations at HB1 and HB3a instrument	Masa Matsuda, Huibo Cao (ORNL)	HFIR
12:30-1:30pm	Working Lunch: Future instruments for polarization analysis at STS	Georg Ehlers (ORNL)	C156
1:30-5:30 PM	Group B: Hands-on polarized INS experiment at HYSPEC	Ovi Garlea, Barry Winn, Melissa Graves-Brook, (ORNL)	HYSPEC (BL14B)
	Group C: Processing TOF polarized data using Mantid,	Igor Zaliznyak (BNL), Andrei Savici (ORNL)	C156
	Group A: Tour of HFIR beam room and discussions. Practical considerations of polarization configurations at HB1 and HB3a instrument	Masa Matsuda, Huibo Cao (ORNL)	HFIR
5:30-6:00 PM	Open discussion and workshop survey	Ovi Garlea, Barry Winn (ORNL)	C156