

## Polarized Neutron Diffraction and Spectroscopy: Applications to Quantum Materials

Event Contacts: Ovi Garlea: 865-202-7546 ([garleao@ornl.gov](mailto:garleao@ornl.gov)); Barry Winn ([winnbl@ornl.gov](mailto:winnbl@ornl.gov));  
 Stuart Calder ([caldersa@ornl.gov](mailto:caldersa@ornl.gov)); Huibo Cao ([caoh@ornl.gov](mailto:caoh@ornl.gov)); Masaaki Matsuda ([matsudam@ornl.gov](mailto:matsudam@ornl.gov))  
 Administrative Support: Natalie Hogan ([hoganr@ornl.gov](mailto:hoganr@ornl.gov))

### FRIDAY, JUNE 28, 2024

Time	Event	Presenter
8:30 – 8:45	Welcome and workshop overview/goals	Ovidiu Garlea
8:45 – 9:30	General Introduction to neutron polarization technique (I): overview of applications	Barry Winn
9:30 – 9:45	Coffee Break	
9:45 – 10:30	General Introduction to neutron polarization technique (II): polarization components	Barry Winn
10:30 – 11:15	Polarized neutron diffraction on powders at POWDER instrument / Science highlights	Stuart Calder
11:15 – 12:00	Polarized neutron diffraction on single crystals at DEMAND instrument / Science highlights	Huibo Cao
12:00 – 13:00	Working Lunch: “Practical consideration for planning and writing proposals for polarized measurements at DEMAND and POWDER instruments”	Huibo/Stuart
13:00 – 15:00	Hands-on on polarized powder data analysis	Stuart Calder
15:00 – 15:15	Coffee Break	
15:15 – 17:00	Hands-on on polarized single-crystal data analysis	Zach Morgan/Yiqing Hao/ Kyle Ma/ Huibo Cao
17:00 – 17:30	Open discussions	Ovi Garlea

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**SATURDAY, JUNE 29, 2024**

Time	Event	Presenter
8:30 – 9:30	Linear- polarization analysis using triple axis spectrometers/ PTAX science highlights	Masaaki Matsuda
9:30 – 10:15	Neutron polarization analysis on multi-detector instruments /XYZ polarization analysis	Ovidiu Garlea
10:15 – 10:30	Coffee Break	
10:15 – 11:30	Science opportunities using the neutron polarization analysis at HYSPEC	Ovidiu Garlea
11:30 – 12:30	Hands-on polarized neutron data from HYSPEC Part1: Data reduction and visualization using SHIVER	Andrei Savici, Ovi Garlea, Barry Winn, Gabriele Sala
12:30 – 13:30	Working Lunch: “Practical consideration for planning and writing proposals for polarized measurements at HYSEC instruments”	Barry Winn
13:30 – 14:00	Introduction to Spinvert and Spinteract for analysis of diffuse magnetic scattering	Joe Paddison
14:00 – 15:30	Hands-on polarized neutron data from HYSPEC Part2: Analysis of diffuse magnetic scattering	Joe Paddison, Andrei Savici, Ovi Garlea, Barry Winn
15:30 – 15:45	Coffee Break	
15:45 – 16:45	Spherical Neutron Polarimetry technique and its application to condensed matter physics	Peter Jiang
16:45 – 17:30	Ultrahigh-resolution diffraction and spectroscopy using superconducting Wollaston prisms	TBD
17:30 – 18:00	Workshop Summary/ Open discussions	Barry Winn