

# ACNS & NDF Clip Day 2024 Program

THURSDAY 6TH JUNE 2024 @ AINSE THEATRE

7:30	Bus departs Cronulla	Rydges Hotel
8:00	Breakfast and registration	ANSTO Cafe
Session 1 : Welcome & Reflectometry theme		
9:00	Welcome	Anton Stampfl
9:10	ACNS Update	Jamie Schulz
9:30	Instrument group talk - Reflectometry	Andrew Nelson
9:45	Nanostructure Explains the Behaviour of Slippery Covalently Attached Liquid Surfaces	Isaac Gresham
10:00	An introduction to the in situ study of electrodes for electrochemical ammonia synthesis via neutron reflectometry	Beck Hodgetts
10:15	A Reduced Bias Method to Model Time-Resolved Neutron Reflectometry Data	Callum Weir-Lavelle
10:30	Morning tea	AINSE Corridor
11:00	AINSE Update	Michael Rose
Session 2: Inelastic scattering theme		
11:15	Instrument group talk – Inelastic scattering	Anton Stampfl
11:30	Understanding the complex magnetic effects in a low-dimensional frustrated magnet through inelastic neutron scattering	Jackson Allen
11:45	Inelastic Neutron Scattering to Investigate Lanthanoid Electronic Structure and Radical Exchange	Marcus Giansiracusa
12:00	Design crystalline thermoelectric materials with low lattice thermal conductivity	Meng Li
12:15	Lunch	AINSE Corridor
Session 3: Small angle scattering theme		
1:15	Instrument group talk – Small angle scattering	Andrew Whitten
1:30	Revisiting the precipitation behaviour in Ti-Mo steel using Small angle neutron scattering	Baoqi Dong
1:45	Exploring Microemulsion Electrolytes: Correlation of Structure to Electrochemical Performance	Ali Salisu
2:00	Copolymers of Gelatin-graft-poly(3-hexylthiophene) for Transient Electronics	Xin Sun
2:15	The nanoarchitecture of mRNA-loaded lipid nanoparticles: Insights from a small-angle neutron scattering perspective	Haikun Liu
2:30	Localization of monomers within hexagonal packing system for precise administration of nanofiltration membrane structures	Senlin Gu
2:45	Unraveling the Effect of Concentrated Electrolytes on Polyelectrolyte Brush Morphology	Geran Dunlop
3:00	Afternoon tea	AINSE Corridor
Session 4: Industry, imaging theme		
3:30	Instrument group talk - Imaging	Floriana Salvamini
3:45	Industry Talk	Anna Paradowska
4:00	Micro-CT application of bioinclusions in Australian amber	Maria Blake
4:15	Residual stress and material characterisation of Wire-Arc additively manufactured structural steel components	Markus Domogala

<b>THURSDAY 6TH JUNE 2024 @ AINSE THEATRE CONTINUED</b>		
4:30	Characterisation of residual stress and defects in structure fabricated via additive friction stir deposition	Vladislav Yakubov
<b>Poster slam (3 mins per speaker)</b>		
4:45	Subtle Crystal Field Modulation of Dy Single-Molecule Magnets	Stanley Bagio
	Synthesis and characterisation of hydrophobic polymer brushes composed of silicon methacrylates	Zac Di Pietro
	Residual stress and hydrogen embrittlement in Wire and Arc Additive Manufactured 316 stainless steel	Min Wu
	Enhanced Nitric Oxide Delivery Through Self-Assembling Nanoparticles for Eradicating Gram-Negative Bacteria	Xiangfeng Lai
	Magnetic Characterisation of the High Entropy Oxide $\text{La}(\text{Cr}_{0.2}\text{Mn}_{0.2}\text{Fe}_{0.2}\text{Co}_{0.2}\text{Ni}_{0.2})\text{O}_3$	Kayla Lord
	Effect of different toolpath strategies on surface properties of laser based directed energy deposited (L-DED) samples	Ikram Ul Hassan
	Revising Magnetic Features in a New 2D Ferromagnet $\text{Fe}_3\text{GaTe}_2$ with Above-room-temperature $T_c$	Molly You
5:30	<b>Poster Session</b>	ANSTO Cafe
6:30	<b>Dinner</b>	ANSTO Cafe
8:00	<b>Bus to Rydges Hotel</b>	Discovery Centre
<b>FRIDAY 7TH JUNE 2024 @ AINSE THEATRE</b>		
	Hotel check out	Participants
7:45	Bus departs Cronulla	Rydges Hotel
8:20	Breakfast	ANSTO Cafe
<b>Session 5: Diffraction theme</b>		
9:25	Instrument group talk - Diffraction	James Hester
9:45	The Effects of Doping on the Magnetic Transition Regions of the Skyrmion Hosting Material, $\text{Cu}_2\text{OSeO}_3$	Marco Vas
10:00	Development of active and stable cathode materials for protonic ceramic fuel cells	Desheng Feng
10:15	Structure optimizing and advanced characterization on the layered cathode for lithium-ion batteries	Jingxi Li
10:30	Ionic conductivity and local structure in sodium perovskite solid-state electrolytes	Mia Brennan
10:45	Morning tea	AINSE Corridor
<b>Session 6: Deuteration related theme</b>		
11:15	National Deuteration Facility	Anwen Krause-Heuer
11:30	Sample Environment	Tim D'Adam
11:45	Self Assembly in Water-in-Salt Electrolytes	Lucas Wong
12:00	How does a milk peptide improve the actions of an antifungal drug?	Lissy Hartmann
12:15	Proposal writing	Kirrily Rule
12:30	Feedback survey	Committee
12:40	Closing and awards	Jamie Schulz
1:00	Lunch	AINSE Corridor
2:15	<b>Bus to Sutherland station</b>	Discovery Centre