



DAY 1 – WEDNESDAY 9 NOVEMBER

8:30	Registration opens - AINSE Theatre		
9:30	Welcome to Country, Welcome & Opening Address (Andrew Peele – ANSTO NST Group Executive) & Housekeeping		
Time	Presenter	Title (Abstract #)	Affiliation
Session 1 - ANSTO Facility Updates (Chair: Andrew Peele, ANSTO)			
10:00	Jamie Schulz	Update from the Australian Centre for Neutron Scattering (69)	ANSTO
10:30	Tamim Darwish	Deuterium labelling at the National Deuteration Facility: Updates on Demand and Supply (44)	ANSTO
11:00	<i>Morning Tea</i>		
Session 2 - Earth, Environment & Cultural Heritage (Chair: TBA)			
11:20	Keynote/Invited - Carla Raymond, Macquarie University Neutron Imaging and the Heritage Sector: Attitudes, Concerns, and Applications		
11:50	Ron Anderson	The cutting edge of archaeological inquiry: Antique swords and neutron techniques (68)	Uni Sydney
12:10	Joseph Bevitt	The Invisible Revealed: Cultural Forensics with Neutron Beam Science (73)	ANSTO – ACNS
12:40	<i>Lunch</i>		
Session 3 - ANBUG 2022 Award Presentations (Chair: Yun Liu, ANU)			
13:50	ANBUG Neutron Award		
14:10	ANBUG Technical Award		
14:30	ANBUG Outstanding PhD Prize		
14:50	ANBUG Young Scientist Award		
15:10	<i>Afternoon Tea</i>		
15:30	ANBUG Career Award		
16:00	ANBUG Annual General Meeting (AGM)		
16:40	<i>Short break</i>		
17:00	Plenary - Marianna Yanez Arteta, AstraZeneca (Virtual) Lipid Nanoparticles for mRNA delivery: Using Neutron Scattering for Successful Redesign		
18:15 to 20:30	Poster/Networking Session – nandin <i>Drinks and finger food</i>		



DAY 2 – THURSDAY 10 NOVEMBER

Time	Presenter	Title (Abstract #)	Affiliation
Session 4 – Manufacturing, Engineering & Industry (Chair: TBA)			
9:00	Keynote/Invited – Ania Paradowska, ANSTO Update on the progress of ACNS Industrial Liaison Office and future opportunities		
9:30	Olivia Kendall	Residual stress in multilayer laser cladding depositions on light rail components (46)	Monash Uni
9:50	Jiawei Tu	Investigation of the residual stress of steel after laser cleaning (37)	Uni Sydney
10:10	<i>Morning Tea</i>		
Session 5 – Chemistry & Crystallography (Chair: Richard Mole, ANSTO)			
10:30	Keynote/Invited – Colette Boskovic, University of Melbourne Inelastic Neutron Scattering for Elucidation of Lanthanoid Single-Molecule Magnet Properties		
11:00	Andrew Braz	Spin Ice Behaviour in Spin Crossover Materials (31)	Uni Sydney
11:20	Jitendra Mata	Understanding nanoplastic toxicology using neutron scattering techniques (23)	ANSTO – ACNS
11:40	Maria Nicholas	Neutron Diffraction at the start and end of the Nuclear Fuel Cycle (72)	Uni Sydney
12:00	Josie E. Auckett	Disorder and ionic conductivity in Ba ₃ Nb(M)O _{8.5} (38)	ANSTO – Aust Synchrotron
12:20	<i>Lunch</i> Student – ECR Panel/Q&A		
Session 6 – Biological Systems & Soft Matter (Chair: Anthony Duff, ANSTO)			
13:30	Arslan Siddique	Investigating Allergenicity of Pollen Allergens in Thunderstorm Asthma Using Neutron Reflectometry (22)	UNSW
13:50	Hsin-Hui Shen	Cubosomes: A polytherapy based approach to combat antimicrobial resistance (47)	Monash Uni
14:10	Ashley Williams	Modelling Small-Angle Neutron Scattering of concentrated wormlike micelles (5)	Monash Uni
14:25	Lucas Wong	Polycation radius of gyration in a polymeric ionic liquid (PIL): the PIL melt is not a theta solvent (55)	Uni West Aust
14:40	Keynote/Invited – Jeremy Lakey, Newcastle University (UK) Defining the binding site for an antibiotic protein toxin using mutants and neutrons		
15:10	<i>Afternoon Tea</i>		
Session 7 – Deuteration for Neutrons (Chair: Tamim Darwish, ANSTO)			



AANSS 2022 | ANBUG-AINSE Neutron Scattering Symposium PROGRAM

15:30	Anthony Duff	Solution structure characterisation of the complex of ubiquitin and its conjugating enzyme E2 by deuteration and small angle neutron scattering (78)	ANSTO – NDF
15:45	Rob Russell	Development of the yeast platform in the NDF for expanding the range of lipids available to researchers (64)	ANSTO – NDF
16:00	Jörg Pieper	Structures of photocycle intermediates of the orange carotenoid protein studied by small angle scattering using partial deuteration (39)	Uni Tartu
16:20	Carl Recsei	Diverse Deuterated Lipids for Neutron Applications (54)	ANSTO – NDF
16:40	Keynote/Invited – Anne Martel, Institut Laue-Langevin BioSANS for membrane proteins		
17:10	<i>Short break</i>		
17:30	Plenary – Valeska Ting, University of Bristol (Virtual) Insights into hydrogen storage in porous materials from neutron scattering		
18:30	Pre-dinner drinks and conversation		
19:00	Dinner – ANSTO Café		





DAY 3 – FRIDAY 11 NOVEMBER

Time	Presenter	Title (Abstract #)	Affiliation
Session 8 – Magnetism & Condensed Matter (Chair: TBA)			
9:00	Keynote/Invited – Xiaolin Wang, University of Wollongong The grand design of new class of materials and physical properties		
9:30	Abduliken Bake	Top-down patterning of topological edge states using ion beam and characterization with neutron reflectometry (59)	Uni Wollongong
9:50	Rong Fu	Thermodynamics and local environment in liquid gallium under static magnetic fields (27)	UTS
10:10	Amitesh Paul	Topologically stabilized spin configurations in rare-earth based systems using polarized neutron scattering (40)	Guangdong Technion
10:30	<i>Morning Tea</i>		
Session 9 – Neutron Instruments & Techniques (Chair: TBA)			
10:50	Keynote/Invited – Alison Edwards, ANSTO – ACNS KOALA decommissioned October 2022: what has been achieved? and what remains to be done KOALA2 implementation underway		
11:20	Hayden Robertson	refnx + refellips: Analysing neutron/X-ray/light scattering from surfaces in Python (20)	Uni Newcastle
11:35	Andreas Magerl	Recent Achievements in Neutron Backscattering (1)	Uni Erlangen-Nürnberg
11:50	Rachel White	Sample environment developments from the Australian Centre for Neutron Scattering (84)	ANSTO – ACNS
12:05	Richard Mole	Supermirror focussing guide for Pelican (32)	ANSTO – ACNS
12:20	<i>Lunch</i>		
13:30	AINSE Update – Michelle Durant		
Session 10 – Lightning Talks (Chair: TBA)			
13:45	Katherine Chea	Understanding and controlling the formation of photonic crystals from polydisperse colloidal systems (66)	RMIT
13:55	Ferensa Oemry	Experimental and Computational Studies of Sulfided NiMo Supported on Pillared Clay: Catalyst Activation and Guaiacol Adsorption Sites (88)	Nat Res & Inno Agency, Indonesia
14:05	Rebecca Hodgetts	Interrogation of the mechanism of Li-mediated ammonia electrosynthesis by in situ neutron reflectometry (19)	Monash Uni
14:15	Josh Marlow	How ionic liquid composition and structure affect micelle morphology (74)	ANSTO – ACNS
14:25	Question time		



AANSS 2022 | ANBUG-AINSE Neutron Scattering Symposium PROGRAM

14:40 *Afternoon Tea*

Session 11 – Advanced Materials (Chair: Yun Liu, ANU)

15:00	Ahmed Al-Qatatsheh	In situ SANS analysis to investigate the electric field alignment of Silver-based Solvate Ionic Liquid (SIL) and Silver Nanoparticles (AgNPs) in nanocomposites (3)	Swinburne Uni Technology
15:20	Indri Adilina	Neutron scattering studies of biochar for catalysis applications (87)	Nat Res & Inno Agency, Indonesia
15:40	Caleb Stamper	Phonon Engineering Thermoelectrics with Inelastic Neutron Scattering (10)	Uni Wollongong
16:00	Zixi Xie	Investigation of anomalous thermal and pressure-induced distortion in spin crossover materials (4)	Uni Sydney
16:15	Jenny Stansby	Rational Design of Advanced Nuclear Fuel Materials: New Pathways from In Situ Neutron Diffraction (30)	UNSW
16:30	Closing		