

HIRES 2023				December 2023
Synergies in High RESolution Spectroscopy				
	12 Tuesday	13 Wednesday	14 Thursday	15 Friday
8:45-9:00	Opening – Ken Andersen			
	Session Chair: NN	Session Chair: F. Schreiber	Session Chair: T. Keller	Session Chair: F. Juranyi
9:00-9:20	Bernhard Frick (invited) Introduction to Neutron Backscattering Spectroscopy and overview over instrument developments and applications	Anita Girelli (invited) Diffusion during protein phase separation probed with x-ray and neutron scattering	Romain Sibille (invited) High-resolution neutron spectroscopy of low-energy excitations in quantum spin ice materials	Juan Colmenero (invited) Neutron spectroscopy with polarisation analysis: the key to unveil coherent scattering of liquids and glass-forming systems at the mesoscale
9:20-9:40				
9:40-10:00	Goran Nilsen (invited) Recent developments in polarized neutron spectroscopy at ISIS	Wolfgang Doster High resolution problems with biological samples	Emma Lenander Magnetically frustrated dynamics on the Cairo pentagonal lattice	Dimitrios Bessas Phonon spectroscopy using X-rays and a nuclear resonance
10:00-10:20		Masato Matsuura High-resolution measurements on inelastic and quasielastic neutron scattering at TOF near backscattering spectrometer DNA for hardmatters	Danny Mannix Exploiting polarised neutron and ultrafast X-ray pump-probe synergies to reveal the spin and heat dynamics in spin caloritronics	Y Z Unusual dynamics of tetrahedral liquids caused by the competition between dynamic and chemical heterogeneity
10:20-10:40	COFFEE			
	Session Chair: F. Mezei	Session Chair: P. Deen	Session Chair: R. Biehl	Session Chair: J.M. Zanotti
10:40-11:00	Peter Falus (invited) Neutron Spin Echo on WASP	Lukas Beddrich Comparison of time-of-flight with MIEZE spectroscopy of H ₂ O: Necessity to go beyond the spin-echo approximation	Michihiro Nagao Collective lipid acyl tail dynamics and membrane viscosity	Antonio Faraone Q-dependent collective relaxation dynamics of glass-forming liquid Ca _{0.4} K _{0.6} (NO ₃) _{1.4}
11:00-11:20		Olaf Holderer SNS-NSE: First decade of operations	Antonino Calio Unravelling the mechanisms of adaptation to high pressure in proteins	Henrich Frielinghaus The dynamics of ionic liquids in mild confinement
11:20-11:40	Bela Farago (invited) Matching NSE and TOF together	Nicolas R de Souza Emu µeV-resolution neutron spectrometer at ANSTO: Capabilities and complementarities	Felix Roosen-Runge Structure and dynamics during hydrophobic collapse of elastin-like polypeptides	Jon Maiz Exploring the impact of composition and cross-linking degree on single-chain nanoparticles derived from
11:40-12:00		Philipp Gutfreund Rheo-Neutron Spin Echo spectroscopy	Alessandro Paciaroni Diffusive dynamics of bacterial proteome as a proxy of cell death	Maksim Plekhanov QENS study of citrate dynamics on the surface of iron oxide nanoparticles
12:00-14:00	LUNCH			
	Session Chair: B. Frick	Session Chair: V. Garcia Sakai	Session Chair: A. Arbe	End of meeting
14:00-14:20	Fankang Li (invited) The Larmor labeling program at ORNL for high resolution neutron diffraction and spectroscopy.	Rony Granek (invited) Dynamic structure factor of undulating vesicles: Finite-size, spherical geometry, and membrane viscosity effects with application to neutron spin echo experiments	Margarita Kruteva (invited) Different aspects of polymer dynamics probed by neutron spin-echo and PFG NMR	
14:20-14:40				
14:40-15:00	Pascale Deen (invited) The spectroscopy suite of the ESS	Virginie Marry (invited) Water dynamics in clays: coupling molecular dynamics and NSE experiments	Quentin Berrod (invited) Energy related materials probed with neutrons: electrolytes, nanoconfinement and multiscale dynamics	
15:00-15:20				
15:20-15:40	F. Schreiber, F. Roosen-Runge Round Table: Future of NSE at ESS?	COFFEE		
	COFFEE	Session Chair: H. Frielinghaus	Session Chair: A. Faraone	
15:40-16:00		Arantxa Arbe Collective dynamics and self-motions in the van der waals liquid tetrahydrofuran from meso- to inter-molecular scales disentangled by neutron spectroscopy with polarization analysis	Fanni Juranyi TOF and BS synergies to deal with increasing complexity in materials research	
16:00-16:20	Guidehall visits	Ralf Biehl Polyelectrolytes: Interchain hydrodynamic interaction and internal friction	Peter Fouquet Hydrogen mobility and reactivity in MoS ₂ catalyst	
16:20-16:40		Laura-Roxana Stingaciu Probing the secrets of life with neutron scattering: high resolution spectroscopic techniques to unveil dynamics insights into proteins, living cells, and plants	Kanming Shi Molecular dynamics in the metal halide perovskites FASnX ₃ (X = Cl, Br, I) investigated using quasi-elastic neutron scattering	
16:40-17:00			Lukas Fine Hydrogen dynamics in the nitride-hydride Ca ₃ CrN ₃ H	
17:00-17:20				
19:30-22:30			Workshop dinner in the restaurant Epicurien in the city center	