

# HIRES 2026

Synergies in High RESolution Spectroscopy

## PROGRAM



|             | Tuesday 10 March  | Wednesday 11 March   | Thursday 12 March  | Friday 13 March   |
|-------------|---|--|--|---|
| From 8:30   | <b>Registration</b><br><b>Hall ILL 4</b>  | <b>Chadwick Amphitheatre</b>   | <b>Chadwick Amphitheatre</b>   |   |
| 9:00-9:25   | <b>9:15 Welcome ILL</b><br><b>Chadwick Amphitheatre</b>   | <b>Chair: Martin Boehm</b><br><b>Elsa Lhotel (Invited)</b>   | <b>Chair: Fanni Juranyi</b><br><b>Olivier Delaire (Invited)</b>  | <b>Chadwick Amphitheatre</b>  |
| 9:25-9:50   | <b>Chair: Helmut Schober</b>  | Enhanced dynamics in disordered non-Kramers spin ice Ho <sub>2</sub> (Ti <sub>1-x</sub> Hfx) <sub>2</sub> O <sub>7</sub>   | Atomic dynamics studied with INS, QENS and large-scale atomistic simulations   | <b>Chair: Margarita Kruteva</b>   |
| 9:50-10:15  | <b>John Ross Stewart (Invited)</b><br>Wide angle neutron polarization analysis time of flight spectroscopy at ISIS      | <b>Lukas Beddrich</b><br>The influence of dipolar interactions on the critical dynamics in nickel  | <b>Aiki Gerakianaki</b><br>From Atomic Motion to Catalytic Function: Unraveling Hydrogen Dynamics in MoS through High Resolution Neutron Techniques  | <b>Paulina Szymoniak (Invited)</b><br>From Molecular Mobility to Macroscopic Recyclability – A Multiscale Study on Vitrimers                                    |
| 10:15-10:40 | <b>Coffee break</b>   |  |  |   |
| 10:40-11:05 | <b>Chair: Jorg Voigt</b><br><b>Adrien Perrichon</b><br>Update on VESPA, the vibrational neutron spectrometer at the ESS | <b>Chair: Bella Lake</b><br><b>David Tam</b><br>Magnetic studies in a rare earth Kitaev candidate  | <b>Chair: Denis Morineau</b><br><b>Oskar OJSTEDT</b><br>Atom-scale dynamics in germanium-based hybrid metal halide perovskites   | <b>Chair: Michihiro Nagao</b><br><b>Dieter Richter</b><br>Dynamics of Polymer Rings in Ring-Linear Blends combining Rheology and Neutron Spin Echo Spectroscopy |
| 11:05-11:30 | <b>Frederic Bourdarot</b><br>ZETA+ : First successes  | <b>Oystein Fjellvag</b><br>Spinon continuum of a triangular lattice insulating candidate   | <b>Timothy Ziman</b><br>Theory of Spin Seebeck effect and low-lying crystal field excitations in a Rare-Earth Iron Garnet  | <b>Jack Rooks</b><br>Correlating QENS with Rheology in Polymer Nanocomposites   |
| 11:30-11:55 | <b>Chuyi Huang</b><br>Towards the development of polarization analysis with high energy resolution for SPHERES          | <b>Thomas Keller</b><br>Lifetimes of spin excitations with three-axis spin-echo  | <b>Johanna Jochum</b><br>Extending MIEZE spectroscopy towards thermal wavelengths  | <b>Aastha Tejasvi</b><br>Rheo-NSE: Probing dynamics of entangled polymer blends under shear.  |
| 12:00-14:00 | <b>Lunch</b>  |  |  |   |
| 14:00-14:25 | <b>Chair: Judith Peters</b><br><b>Tatsuhito Matsuo (Invited)</b>  | <b>Chair: Dieter Richter</b><br><b>Juan Colmenero (Invited)</b>  | <b>Chair: Vicky Garcia Sakai</b><br><b>Antonio Faraone (Invited)</b>   |   |
| 14:25-14:50 | Dynamics and structure of proteins and lipids in context of diseases using neutron scattering and synchrotron radiation | Universal behavior of mesoscopic dynamics in molecular liquids: spectroscopy with polarized neutrons and MD-simulations  | Structural relaxation and nano-domain dynamics in highly concentrated electrolytes for zinc anode batteries  |   |
| 14:50-15:15 | <b>Ralf Biehl</b><br>Diffusion, search and attack motions of antibodies   | <b>Mohammad Nadim Kamar</b><br>A combined QENS and NMR study of the dynamics of the deep eutectic solvent ethaline   | <b>Arantxa Arbe</b><br>On the origin of the non-dispersive mode in glass-forming liquids: the case of squalane   |   |
| 15:15-15:40 | <b>Olaf Holderer</b><br>Structure and dynamics of oil/water interfaces in emulsions                                     | <b>Denis Morineau</b><br>Effect Surface Chemistry on the Properties of Nanoconfined Water  | <b>Anand Kumar Tiwari</b><br>Pressure dependent dynamical investigation of relaxations associated with hydrogen bonding in 1-propanol  |   |
| 15:40-16:05 | <b>Coffee break</b>   |  |  |   |
| 16:05-16:30 | <b>Guidehall visits</b>   | <b>Chair: Ross Stewart</b><br><b>Geoffrey McNulty</b><br>Combining Inelastic Neutron Scattering with Nuclear Magnetic Resonance Spectroscopy for Molecular Hydrogen Endofullerenes | <b>Chair: Arantxa Arbe</b><br><b>YuanChi Yang</b><br>The Role and Dynamics of Interstitial Water and Sodium in Hydrated Manganese Iron Prussian Blue Analogs: A Synergistic Study Combining NPD, QENS, and MLIP-MD |   |
| 16:30-16:55 |   | <b>Maria Rescigno</b><br>High-pressure QENS: identifying plastic phases in planetary ices  | <b>Michaela Zamponi</b><br>Cooperative tracer chain dynamics in highly entangled polymer melts   |   |
| 16:55-17:20 |   | <b>Amalie Davidsen</b><br>KVASIR: A backscattering neutron spectrometer for hard condensed matter at ESS   | <b>Benedetta Rosi</b><br>Self and collective dynamics in a highly crosslinked polybutadiene rubber   |   |
|             | <b>Poster session with wine &amp; cheese</b><br><b>ILL 50 - 110/111</b>   | <b>Poster session with aperitif</b><br><b>ILL 50 - 110/111</b>   |  | <b>Conference Dinner</b><br><b>Restaurant l'Epicurien</b>   |