

UPPSALA  
UNIVERSITET



*Swedish Neutron Week 2025*  
*9-13 June, 2025*  
*Visby, Gotland*





## Conference Program

### Monday 9<sup>th</sup> June


15:00 – 16:00	Arrival & Registration + Hang Posters (→ <b>Ferry arrives 15:00</b> )	
<b>Welcome + Plenary Talks + Keynotes</b> (Chair: <b>Martin Månsson, KTH</b> )		
16:00 – 16:10	Welcome / Opening of the Meeting	<b>Martin Månsson</b> <i>SwedNess / KTH</i> <b>Felix Roosen-Runge</b> <i>SNSS / Lund University</i>
16:10 – 16:50	<b>Plenary Talk</b> “ <b>Probing the Past:</b> Neutron & high-energy applications for archaeology & cultural heritage”	<b>Prof. Patrick Randolph-Quinney</b> <i>Uppsala University</i>
16:50 – 17:30	<b>Plenary Talk</b> <b>The many universes of quantum materials</b>	<b>Prof. Stephen Blundell</b> <i>University of Oxford</i>
17:30 – 17:45	<b>FIKA</b>	
17:45 – 18:10	<b>Keynote</b> Status/Plans/Highlights of ESS	<b>Prof. Giovanna Fragneto</b> <i>Science Director, ESS, Sweden</i>
18:10 – 18:35	<b>Keynote</b> Status/Plans/Highlights of CSNS	<b>Prof. Sheng Wang</b> <i>Director, CSNS, IHEP, China</i>
18:35 – 19:00	<b>Keynote</b> Status/Plans/Highlights of “ISIS / ISIS-II” Neutron and Muon Source	<b>Dr. Philip King</b> <sup>online</sup> <i>Associate Director for Partnerships and Programmes, ISIS, STFC, UK</i>
19:00 – 19:15	<b>Keynote</b> ISIS/Sweden Collaboration Projects	<b>Prof. Aleksandar Matic</b> <i>Swedish Research Council (VR)</i>
19:15 – 19:30	Quantum Beam Optics Sweden AB	<b>Dr. Anton Zubayer</b> <i>Linköping University</i>
19:30 – ...	<b>DINNER @ Clarion Hotel Wisby</b> (Also Meeting: PI + SNSS + SwedNess board )	

### Tuesday 10<sup>th</sup> June

<b>“Soft Matter &amp; Life-Science”</b> (Chair: <b>Felix Roosen-Runge, LU</b> )		
06:30 – 08:15	<b>BREAKFAST</b>	
08:15 – 08:45	<b>Invited Talk</b> Revealing Molecular Rearrangements in Lipid Membranes via Time-Resolved Neutron Reflectometry	<b>Dr. Yuri Gerelli</b> <i>CNR – Institute for Complex Systems, Italy</i>
08:45 – 09:00	The dynamic behaviour of Styrene Maleic Acid Lipid Particles with and without membrane proteins	<b>Dr. Tom Arnold</b> <i>ESS</i>
09:00 – 09:15	Interaction of sodium perfluorooctanoate and sodium perfluorohexanoate with Moringa oleifera seed protein	<b>Njelama Sanga</b> <i>Uppsala University</i>
09:15 – 09:30	Studying structure – function relationships in lipid nanocarriers for the delivery of oligonucleotides	<b>Prof. Hanna Barriga</b> <i>KTH, SciLifeLab</i>
09:30 – 09:45	Grazing Incidence Small-Angle Neutron Scattering for Investigating Functional Materials	<b>Prof. Stephan V. Roth</b> <i>KTH / DESY</i>
09:45 – 10:00	Moisture-Driven Structural Reorganization and Phonon Dynamics in Cellulose Nanomaterials	<b>Agnes Åhl</b> <i>Stockholm University</i>
10:00 – 10:15	Combining SANS and optical spectroscopies to resolve assembly mechanisms in silk proteins	<b>Juanita Francis</b> <i>Lund University</i>
10:15 – 10:30	<b>FIKA / POSTERS</b>	



## Tuesday 10<sup>th</sup> June (continued)

SNSS/SwedNess General Assemblies (Chair: Martin Månsson, KTH)		
10:30 – 11:00	SNSS Business Meeting / Community Update	<b>Max Wolff &amp; Hanna Barriga</b> SNSS / Uppsala University / KTH
11:00 – 11:15	SAGA: A surface scattering beamline for ESS	<b>Dr. Sebastian Köhler</b> LINXS
11:15 – 11:30	High-Precision Searches for Baryon Number Violation using HIBEAM	<b>Matthias Holl</b> Lund University
11:30 – 12:15	SwedNess Update	<b>Martin Månsson</b> SwedNess / KTH
12:15 – 13:30	<b>LUNCH / POSTERS</b>	
“Hard-Matter / Engineering” (Chair: Kristine Bakken, Chalmers)		
13:30 – 14:00	<a href="#">Invited Talk</a> Using pair distribution functions to understand local structure in metallic systems	<b>Dr. Lewis Owen</b> University of Sheffield
14:00 – 14:15	Effect of texture on pair distribution function analysis of engineering materials	<b>Monika Rolinska</b> KTH Royal Institute of Technology
14:15 – 14:30	The progress of the neutron total scattering diffractometer MPI at CSNS	<b>Prof. Wen Yin</b> IHEP, CAS, CSNS
14:30 – 15:00	<a href="#">Invited Talk</a> From Powder to Part: Real-Time Insights into Laser-Based Additive Manufacturing with Neutrons and X-rays	<b>Dr. Steven Van Petegem</b> Paul Scherrer Institute (PSI)
15:00 – 15:15	Assessment of build plate temperature effect in additively manufactured metal components using neutrons	<b>Dr. Prabhat Pant</b> Uppsala University
15:15 – 15:30	<b>FIKA / POSTERS</b>	
“Quantum Materials / Magnetism” (Chair: Yasmine Sassa, KTH)		
15:30 – 16:00	<a href="#">Invited Talk</a> Investigating quantum spin chains with neutron scattering	<b>Prof. Bella Lake</b> Helmholtz-Zentrum Berlin (HZB)
16:00 – 16:30	<a href="#">Invited Talk</a> Chiral Split Magnon in Altermagnetic MnTe	<b>Zheyuan Liu</b> University of Tokyo, ISSP
16:30 – 16:45	INS Studies of Organometallic Quantum Materials	<b>Frank Elson</b> KTH Royal Institute of Technology
16:45 – 17:00	Two characteristic contributions to the superconducting state of 2H-NbSe <sub>2</sub>	<b>Ahmed Alshemi</b> Lund University
17:00 – 17:15	Quantum-wells and interlayer exchange coupling in Fe/MgO(001) superlattices revealed by neutron reflectivity	<b>Prof. Björgvin Hjörvarsson</b> Uppsala University
17:15 – 17:30	An inelastic neutron scattering study of the magnetic field dependence of the quantum dipolar garnet: Yb <sub>3</sub> Ga <sub>5</sub> O <sub>12</sub>	<b>Dr. Pascale Deen</b> ESS + ILL
17:30 – 17:45	Tuning structural modulations and magnetic properties in formate coordination polymers [CH <sub>3</sub> NH <sub>3</sub> ]Co <sub>x</sub> Ni <sub>1-x</sub> (HCOO) <sub>3</sub>	<b>Dr. Madeleine Geers</b> Uppsala University
17:45 – 19:15	<b>POSTERS / BEER</b>	
19:30 – 22:30	<p style="text-align: center;"><b>CONFERENCE DINNER</b></p> <p style="text-align: center;">St Nicolai’s Church Ruin --- Smedjegatan 19 621 55 Visby</p>	 <p style="text-align: center;"><a href="https://maps.app.goo.gl/JHaNydVrS2MXZaEP6">https://maps.app.goo.gl/JHaNydVrS2MXZaEP6</a></p>



Wednesday 11<sup>th</sup> June

<b>“Cool Techniques &amp; Exotic Neutron Results” (Chair: Dr. Andrew Jackson, ESS)</b>		
06:30 – 08:15	BREAKFAST	
08:15 – 08:45	<a href="#">Invited Talk</a> Application of elemental analysis with muonic x-rays	<b>Assoc. Prof. Izumi Umegaki</b> KEK, J-PARC
08:45 – 09:15	<a href="#">Invited Talk</a> Standard and Beyond neutron techniques for Heritage Science: Diffraction and elemental analysis	<b>Dr. Antonella Scherillo</b> ISIS - STFC
09:15 – 09:30	Entanglement witnesses in neutron scattering	<b>Prof. Em. Erik B. Karlsson</b> Uppsala University
09:30 – 09:45	Neutron Dark-Field Tomography Reveals Nano-architectures in Macroscopic Biomaterials	<b>Dr. Elisabetta Nocerino</b> Stockholm University / PSI
09:45 – 10:00	Spin-echo SANS	<b>Prof. Katia Pappas</b> TU Delft
10:00 – 10:15	Frontiers in High-Pressure Hydrogenation with Neutrons	<b>Dr. Paulo H.B. Brant Carvalho</b> J-PARC + ESS
10:15 – 10:40	<b>FIKA / POSTERS</b>	
10:40 – 10:55	Multiscale Magnetization Modeling with $\mu$ -ASD: Connecting Simulations to Neutron Scattering Observables	<b>Dr. Manuel Pereira</b> Uppsala University
10:55 – 11:10	Uncovering Hidden Octupolar Correlations in $\text{Yb}_2\text{Ti}_2\text{O}_7$	<b>Miriam Piccinini</b> KTH Royal Institute of Technology
11:10 – 11:15	Switch Session / Chair	
<b>“Sustainability / Energy” (Chair: Prof. Lennart Bergström, SU)</b>		
11:15 – 11:30	Unveiling the magnetic structure of magneto-caloric $\text{Nd}_2\text{In}$ using neutron diffraction	<b>Karthika K. Thilakan</b> Uppsala University
11:30 – 11:45	Photophysical Ion Dynamics in Photovoltaic Hybrid Perovskite $\text{MAPbX}_3$ (X = Br, Cl) Single Crystals	<b>Prof. Yasmine Sassa</b> KTH Royal Institute of Technology
11:45 – 12:00	Reorientational dynamics of cations (PDA/XDA) in layered metal halide perovskites investigated with QENS	<b>Kanming Shi</b> Chalmers
12:00 – 12:15	Unraveling the contrary nature of water in Prussian blue analogue cathode materials using multiple neutron scattering techniques	<b>Ida Nielsen</b> Uppsala University
12:15 – 13:45	<b>LUNCH / POSTERS</b>	
<b>“Cultural Heritage” (Chair: Sindra Petersson Årsköld, ESS)</b>		
13:45 – 14:15	<a href="#">Invited Talk</a> Beyond the Surface: Neutron Imaging in Cultural Heritage Research	<b>Dr. Anna Fedrigo</b> Institut Laue-Langevin (ILL)
14:15 – 14:30	Reflections from the LINXS Heritage Science theme	<b>Dr. Elyse Canosa</b> The Swedish National Heritage Board
14:30 – 14:45	A tomography study of two (pre)Viking Age swords	<b>Dr. John Ljungkvist</b> Uppsala University
14:45 – 15:00	CSNS Energy-resolved Neutron Imaging Instrument and its applications	<b>Prof. Jie Chen</b> IHEP, CAS, CSNS
15:00 – 15:05	<b>CLOSING of the MEETING + Swedish Neutron Week 2026</b>	<b>SwedNess (Martin Månsson) + SNSS</b>
15:05 – ...	<b>“Departure FIKA” (!!! Ferry leaves 16:30 !!!)</b>	
18:00	<b>DINNER</b> (Only for people staying over to 12 <sup>th</sup> June!) <b>@ Our Hotel (Clarion Hotel Wisby)</b>	



SWEDISH FOUNDATION FOR STRATEGIC RESEARCH



Vetenskapsrådet



ISIS Neutron and Muon Source



中国散裂中子源  
China Spallation Neutron Source




EUROPEAN SPALLATION SOURCE

Thursday 12<sup>th</sup> June – “Student Days”



“Early-Stage Researcher (ESR) Career Day” (Chair: Dr. Samira Dorri, KTH)		
06:30 – 08:30	BREAKFAST	
08:30 – 08:50	<b>Prof. Martin Månsson</b> Group Leader: KTH, SMaRT Director of Studies: SwedNess	
08:50 – 09:10	<b>Prof. Daniel Söderberg</b> Head of Division / Director KTH Fibre Processes / TreeSearch	
09:10 – 09:30	<b>Dr. Joakim Amorim</b> Research Programmes Manager Swedish Foundation for Strategic Research (SSF)	
09:30 – 09:50	<b>Prof. Yasmine Sassa</b> Group Leader: QuTM KTH, Applied Physics	
09:50 – 10:10	<b>Dr. Hua Lu Karlsson</b> Expert Engineer Scania	
10:10 – 10:40	FIKA	
10:40 – 11:00	<b>Dr. Andrew Jackson</b> Head Large Scale Structures Division European Spallation Source (ESS)	
11:00 – 11:20	<b>Dr. Shun Yu</b> Senior Research Associate Unit of Smart Materials RISE Research Institute of Sweden	
11:20 – 11:40	<b>Dr. Mats Qvarford</b> Program Manager Packaging Solutions Tetra Pak®	
11:40 – 12:00	<b>Dr. Nanna Zhou Hagström</b> Scientist, Underwater Technology Swedish Defence Research Agency (FOI)	
12:00 – 12:20	<b>Dr. Hamish Cavaye</b> <i>Online</i> Instrument Scientist ISIS/STFC + Johnson Matthey	



## Thursday 12<sup>th</sup> June – “Student Days” (continued)

12:20 – 14:00	<b>LUNCH (Dagens Lunch “Matfabriken”)</b>	
<b>“Equal Opportunity in STEM R&amp;D” (Moderator: Dr. Elisabetta Nocerino)</b>		
14:00 – 14:20	Introduction	<b>Yasmine Sassa &amp; Martin Månsson</b> <i>KTH Royal Institute of Technology</i>
14:20 – 14:50	The Gender Perspective	
14:50 – 15:20	The Cultural Perspective	
15:20 – 15:30	Questions / Reflections	
15:30 – 15:45	<b>FIKA ++</b>	
15:45 – 16:00	Introduction to “way forward” 10 mins	<b>Yasmine Sassa &amp; Martin Månsson</b> <i>KTH Royal Institute of Technology</i>
16:00 – 16:30	Small workgroups “Brainstorm on solutions”	
16:30 – 17:15	Group presentations + Discussions	
17:15 – 17:30	Summary	
17:30 – 17:45	<b>Leftover FIKA + Godis</b>	
<b>“Life-Work Balance” (Chair: Yasmine Sassa, KTH)</b>		
17:45 – 18:45	<b>Finding Balance in Life: from Physics to Mountaineering</b>	 <b>Prof. Em. Bertram Batlogg</b> <i>ETH Zürich</i>
19:30 – ...	<b>DINNER</b> <i>@ Bad Wolf BBQ - Adelsgatan 1B, 621 57 Visby</i>	

## Friday 13<sup>th</sup> June – “Student Days”

<b>Artificial Intelligence (AI) (Chair: Martin Månsson, KTH)</b> <b>History, Functionality, Computer-Human Interaction, &amp; Ethics</b>		
06:30 – 08:30	<b>BREAKFAST</b>	
08:30 – 10:00	<b>AI</b> <i>History, background, sustainability, gender perspective, ethics</i>	 <b>Assoc. Prof. Anders Hedman</b> <i>KTH, Royal Institute of Technology AI &amp; Human-Computer Interaction</i>
10:00 – 10:30	<b>FIKA</b>	
10:30 – 12:00	<b>AI</b> <i>Technical foundation, functionalities, possibilities, &amp; limitations</i>	 <b>Prof. Haibo Li</b> <i>KTH, Royal Institute of Technology AI &amp; Human-Computer Interaction</i>
12:00 – 13:00	<b>LUNCH (Dagens Lunch “Matfabriken”)</b>	
13:00 – 13:45	<b>AI workshop (tasks &amp; group work)</b>	<b>Anders Hedman, Haibo Li &amp; Martin Månsson</b> <i>KTH Royal Institute of Technology</i>
13:45 – 15:00	<b>FIKA + AI: Presentations &amp; Concluding Remarks</b>	<b>Anders Hedman, Haibo Li &amp; Martin Månsson</b> <i>KTH Royal Institute of Technology</i>
15:00 – ...	Departure <b>(!!! Ferry leaves 16:00 !!!)</b>	

**END OF SWEDISH NEUTRON WEEK 2025**