Programme

Advanced Seminar on "Perspectives for Neutron Science in Novel & Extreme conditions"

Day One - Sunday 27th May

20h30	**Reception and Welcome Party – Hotel Melia**

Day Two - Monday 28th May

09h00 – 10h00	**Registration**
10h00 – 10h30	**Opening**
10h30 – 11h30	**What could a XtremeC Beamline Unveil in Materials Science?** (*Fernando Rodríguez – University of Cantabria*)
11h30 – 12h00	**Coffee break**
12h00 – 13h00	**Neutron Diffraction in Pulsed High Magnetic Fields** (*Hiroyuki Nojiri – Tohoku University*)
13h00 – 14h00	**The Road Ahead for the European Spallation Source** (*Colin Carlile – European Spallation Source Sweden*)
14h00 – 16h00	**Lunch**
16h00 – 16h45	**Some Open Questions and Perspectives in the Physics of Solids at Very Low Temperatures** (*Fernando Luis – Materials Science Institute of Aragon*)
16h45 – 17h30	**Protein Crystallography: What Can Nuclear Polarisation Do For Us?** (*Garry McIntyre – Australian Nuclear Science and Technology Organisation*)
17h30 – 18h00	**Coffee break**
18h00 – 19h30	**NMI3 Sample Environment JRA private meeting**

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Day Three - Tuesday 29th May

09h00 – 09h45	**Mineralogy at High Pressure and High Temperature.** (*Simon Redfern – University of Cambridge*)
09h45 – 10h30	**Levitation of Liquid Metals in Space and on Earth** (*Andreas Meyer - Ins. für Materialphysik im Weltraum*)
10h30 – 11h15	**Spin Fluctuations and Lifshitz Transition in Ferromagnetic Superconductor UGe_2 Probed by Larmor Neutron Diffraction Under Pressure.** (*Dimitry Sokolov – University of Edinburgh*)
11h15 – 11h45	**Coffee break**
11h45 – 12h30	**Sample Changers at Low Temperature: Present Status and Perspectives.** (*Luke Heroux – Oak Ridge*)
12h30 – 12h45	**O – 1 Processes in Engineering Materials Under Extreme Thermal and Mechanical Loads.** (*P. Šittner – Institute of Physics ASCR*)
12h45 – 13h00	**O – 2 Sample environment for engineering materials research: from robotic texture analysis to *in situ* friction stir welding.** (*P. Staron - HZG*)
13h00 – 13h15	**O – 3 Vortex depinning studies with SANS at ultra low temperatures.** (*M. Bartkowiak – Paul Scherrer Institut*)
13h15 – 13h30	**O-5 Nuclear spin polarization of Nd by the electronic field in the range of mK** (*E. Palacios – Materials Science Institute of Aragon*)
13h30 – 14h00	***Discussion***
14h00 – 16h00	**Lunch**
16h00 – 16h45	**Neutron Science at High Temperature: Tendencies and Perspectives.** (*Gabriel Cuello – Institute Laue Langevin*)
16h45 – 17h30	**A New Type of Pressure Cell for Neutron Experiments** (*Jesús González - University of Cantabria*)
17h30 – 18h00	**Coffee break**
18h00 – 18h45	**Neutron Scattering in the Mbar Range?** (*Stephan Klotz - Université P&M Curie)*
18h45 – 19h30	**Neutron scattering from planetary materials** (*John Loveday - University of Edinburgh*)

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Day Four - Wednesday 30th May

09h00 – 09h45	**Gas Storage in Porous Materials** (*Craig Brown – National Institute of Standards and Technology*)
09h45 – 10h30	**The Soft Approach: Fibre Diffraction Under Controlled H/D Humidities** (*Trevor Forsyth - Keele Uni. And ILL*)
10h30 – 11h15	**Soft Matter: How Can We Best Exploit Neutron Scattering?** (*Victoria García Sakai – ISIS - STFC*)
11h15 – 11h45	**Coffee break**
11h45 – 12h30	**Advanced Neutron Tools for Soft and bio Materials.** (Annie Brûlet – *Laboratoire Lèon Brillouin*)
12h30 – 12h45	**O-7 Sample Environment for Soft Matter and Biomaterials at ISIS** (*O. KiricheK – ISIS - STFC*)
12h45 – 13h00	**O-8 Catalysis in the neutron beam – Novel sample environment for in situ experimentation at industrial conditions** (*T. Kandemir - Fritz-Haber-Institut der MPG*)
13h00 – 13h15	**O-9 Neutron Beam Fundamentals Development and Novel and Extreme Conditions at JRR-3 and J-PARC/MLF** (*K. Kakurai – Japan Atomic Energy Agency*)
13h15 – 13h30	**O-10 Recent extreme sample environment Experiments at the ISIS Second Target Station** (*P. Manuel – ISIS-STFC*)
13h30 – 13h45	**O-11 Novel and extreme sample environment at the Helmholtz-Zentrum Berlin** (*K. Kiefer - HZB*)
13h45 – 14h00	**O-12 Perspectives for extreme environment indirect geometry spectroscopy at the European Spallation Source** (*P.G. Freeman - Ecole Polytechnique Federale De Lausanne)*
14h00 – 16h00	**Lunch**
16h00 – 16h45	**Neutron Scattering Studies of Quantum Dimer Magnets Under Extreme Conditions** (*Christian Rüegg – Paul Scherrer Institute*)
16h45 – 17h30	**High magnetic field and low temperature sample environments: Perspectives for neutron scattering** (*Phil Pickering – Oxford Instruments*)
17h30 – 18h00	**Coffee break**
18h00 – 18h45	**Magnetic Neutron Scattering Under Extreme Conditions.** (*Karel Prokeš – Helmholtz-Zentrum Berlin*)

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18h45 – 19h00	**O-13 Molecular Spectroscopy and Gas handling experiments in a neutron beam** (*A. Ramírez-Cuesta – ISIS-STFC*)
19h00 – 19h15	**O-14 Quasi Elastic Neutron Scattering under EXtreme conditions** (*L. E. Bove - IMPMC - Université P&M Curie*)
19h15 – 19h30	***Discussion***
20h30 -	**Gala Dinner – "Restaurante La Bastilla"**

Day Five - Thursday 31th May

09h00 – 09h45	**The Hybrid Magnet for Neutron Scattering at Helmholtz Centre Berlin** (*Peter Smeibidl - Helmholtz-Zentrum Berlin*)
09h45 – 10h30	**Control of AFM Domains and Polar Domains with Electric and Magnetic Fields in Multiferroics** (*Juan Rodríguez Carvajal - Institute Laue Langevin*)
10h30 – 11h15	**25 T to 30 T Scattering Magnet Development at the NHMFL.** (*Mark Bird - National High Magnetic Field Laboratory*)
11h15 – 11h45	**Coffee break**
11h45 – 12h30	**Helix development for High Field Magnets** (*Francois Debray - Centre national de la recherché scientifique*)
12h30 – 13h15	**O-16 A 'portable' 17 Tesla cryomagnet for small angle scattering** (*A.T. Holmes - University of Birmingham*)
13h15 – 13h30	**O-17 40T pulsed magnet for neutron experiments** (*J. Billette - LNCMI - CNRS*)
13h30 – 13h45	**O-18 XtremeD - a new diffractometer for high pressures and magnetic fields** (*A. Rodríguez-Velamazán* -)
13h45 – 14h00	**O-19 Neutron powder diffraction investigation and high-field magnetization measurements in ammonium iron(III) bis (hydrogenphosphate)** (*J. A. Blanco - University of Oviedo*)
13h15 – 14h00	**Closing Session**
14h00 – 16h00	**Lunch**