# High-resolution Neutron Diffraction: Current and Future Perspectives

## 7<sup>th</sup>-8<sup>th</sup> January 2020, The Cosener's House, Abingdon

### Tuesday 7th January

8:30-9:30 Arrival / Registration

09.30-09.40 Welcome & Introduction - Robert McGreevy (Director, ISIS)

#### Session 1. Chair: Alex Gibbs

09.40-10.10 Dominic Fortes (ISIS), "HRPD at ISIS; past, present and future"

10:10-10:40 Pascal Manuel (ISIS), "High resolution neutron diffraction for magnetic materials on WISH"

10:40-11:10 Takashi Kamiyama (J-PARC), "High Resolution Neutron Powder Diffraction at J-PARC – what we did and what is still not achieved"

#### 11:10-11:40 Tea and coffee break

#### Session 2. Chair: Stephen Hull

11:40-12:10 Vladimir Pomjakushin (PSI), "Powder neutron diffraction at continuous spallation source SINQ"

12:10-12:40 Matt Tucker (SNS, ORNL), "Current and Future Neutron Diffraction Capabilities at ORNI"

12:40-13:10 Robert Von Dreele (Argonne National Laboratory), "Rietveld refinement with GSAS-II: what's under the bonnet (hood)"

#### 13:10-14:10 Lunch

#### Session 3. Chair: Fabio Orlandi

14:10-14:40 Tomohiro Takayama (University of Stuttgart/MPI-FKF), "High-resolution neutron diffraction study on correlated quantum materials"

14:40-15:10 Amber Thompson (University of Oxford), "High Resolution Neutron Diffraction: A Molecular Perspective"

15:10-15:40 Emma McCabe (University of Kent), "Structural chemistry and physical properties of corundum-derived oxides"

#### 15:40-16:10 Tea and coffee break

#### Session 4. Chair: Emma McCabe

16:10-16:40 Mike Hayward (University of Oxford), "Investigating the structural phase transitions of polar Dion-Jacobson oxides"

16:40-17:10 Richard Jones (Keele University), "Studying weak intermolecular interactions by High-Resolution Neutron Diffraction"

17:10-17:40 Paul Attfield (The University of Edinburgh), "High resolution PND studies of electronic materials"

#### 17:40-19:30 Poster session



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### Wednesday 8th January

Session 5. Chair: Dominic Fortes

09:00–09:30 Gøran Nilsen (ISIS), "Magneto-structural transitions in spinel oxides"

09:30-10:00 Silvia Capelli (ISIS), "H/D isotope effect in molecular organic materials"

10:00-10:30 Isaac Abrahams (Queen Mary University of London), "Subtle phase transitions in materials for high energy storage applications"

10:30–11:00 Tea and coffee break

#### Session 6. Chair: Amber Thompson

11:00–11:30 John Evans (Durham University), "High Resolution Neutron Diffraction: Current and Future Perspectives"

11:30-12:00 Jason McNulty (University of St Andrews), "Structural characterisation of hexagonal tungsten bronzes using high-resolution neutron diffraction"

12:00–12:45 Bill David (University of Oxford / ISIS), "Back to the future: a retrospective look at the next decade of high resolution neutron powder diffraction"

12:45 Meeting closes with lunch followed by coffee/tea