

# 22nd Theoretical and Experimental Magnetism Meeting (TEMM2024)

Organisers: D. Adroja, C. Castelnovo, R. Ewings, F. Kruger, T. Williams et al.

10-11th June 2024, The Cosener's House, Abingdon

## Monday 10th of June – time: BST = GMT+1

- **9:45 to 10:20**            **Break (tea/coffee)**
- **10:20 to 12:30**            **Session 1 – Chair: Frank Kruger**
  - 10:20 Russell Ewings (Diffraction and Muons Division Head, ISIS)  
*Welcome and opening remarks*
  - 10:30 Hidenori Takagi (MPIFKF, Stuttgart)  
*Thermal hall effect of 3d and 4d honeycomb magnets*
  - 11:00 Oksana Zaharko (PSI)  
*Magnetic orders and fluctuation-driven topological Hall effect in itinerant magnet  $Fe_3Ga_4$*
  - 11:30 Hae-Young Kee (Toronto)  
*Transforming from Kitaev to Disguised Ising Chain: application to  $CoNb_2O_6$*
  - 12:00 Leonie Woodland (Oxford)  
*Tuning bound states in Ising chain  $CoNb_2O_6$  via applied transverse field*
  - 12:15 Jennifer Lin (UCL)  
*Majorana-fermion mean field theories of Kitaev quantum spin liquids*
- **12:30 to 14:15**            **Group photo and Lunch**
- **14:15 to 16:15**            **Session 2 – Chair: Stephen Powell**
  - 14:15 Roderich Moessner (MPIPKS, Dresden)  
*Emergent and intrinsic electrodynamics in quantum spin ice*
  - 14:45 Cristian Daniel Batista (Tennessee)  
*The theoretical framework of "Su(n)ny"*
  - 15:15 Shuqiu Wang (Bristol)  
*Topological surface state in a spin-triplet superconductor*
  - 15:45 Rhea Stewart (ISIS)  
*Spin-orbit driven proximity effects in thin film superconductors*
- **16:15 to 16:45**            **Break (tea/coffee)**
- **16:45 to 18:30**            **Session 3 – Chair: Russell Ewings**
  - 16:45 Travis Williams (ISIS)  
*Illuminating the Interactions in the Quasi-2D van der Waals Ferromagnet  $CrSiTe_3$*
  - 17:15 Harry Lane (St Andrews)  
*Kernel Polynomial Method for Linear Spin Wave Theory*
  - 17:30 Alaric Sanders (Cambridge)  
*Experimentally tunable QED in dipolar-octupolar quantum spin ice*
  - 17:45 Rafael Alvaro Flores Calderon (MPIPKS, Dresden)  
*Irrational moments and signatures of higher-rank gauge theories in diluted classical spin liquids*
  - 18:00 Dmitry Kovrizhin (Universite Cergy-Paris, France)  
*Where the current flows in a Chern insulator*
- **18:30 to 19:30**            **Poster presentations and drinks**
- **19:30 to 22:30**            **Dinner at the Cosener's House**

## Tuesday 11th of June – time: BST = GMT+1

- **9:00 to 10:30**            **Session 4 – Chair: Oksana Zaharko**
  - 9:00 Mike Zhitomirsky (CEA Grenoble)  
*Frustration in octahedral networks: from antiperovskites to fcc antiferromagnets*
  - 9:30 Matthew Cliffe (Nottingham)  
*Metal-organic magnets as a modular platform for quantum magnetism*
  - 10:00 Jem Pitcairn (Birmingham)  
*Low-dimensional metal-organic magnets as a route toward the  $S = 2$  Haldane phase*
  - 10:15 Diogo Almeida (St Andrews)  
*Structure-property relationships in quasi-1D ruthenate  $Sr_4Ru_2O_9$*
- **10:30 to 11:00**            **Break (tea/coffee)**
- **11:00 to 12:30**            **Session 5 – Chair: Claudio Castelnovo**
  - 11:00 Gang Chen (Peking)  
*SSH stacking and surface fractionalization in multilayer  $TaS_2$ , and BKT and Kugel-Khomskii physics in Co-bilayers*
  - 11:30 Ewan Scott (UCL)  
*Gauge mean-field theory of Kondo ferromagnets*
  - 11:45 Thomas Poulis (RHUL)  
*Magnetic structure and excitations of the emerging spin-density-wave phase in  $Nb_{(1-y)}Fe_{(2+y)}$*
  - 12:00 Oleg Petrenko (Warwick University)  
*Hidden order and ground state selection mechanism in the frustrated magnet  $NdB_4$*
- **12:30 to 14:00**            **Lunch**
- **14:00 to 16:00**            **Session 6 – Chair: Geetha Balakrishnan**
  - 14:00 Paolo Radaelli (Oxford)  
*Driven matter: magnetism (and much more) induced by high-amplitude phonons*
  - 14:30 Kelly Morrison (Loughborough)  
*Hidden magnetic phase in  $La(Fe,Si)_{13}$  investigated by inelastic neutron scattering*
  - 15:00 Adheena Painganoor (ILL, Grenoble)  
*Determining the magnetic Structure of  $LiCo_{1-x}Ni_xPO_4$*
  - 15:30 Oscar Fabelo (ILL, Grenoble)  
*Structural and Magnetic Modulations in Metal-Organic Coordination Polymers*
- **16:00**                    **Closing remarks**
- **16:00 to 16:30**            **tea/coffee**