

# Quantum Materials Symposium 2019

## POSTER PRESENTATIONS

MONDAY 23 SEPTEMBER 2019		
1.	Alessandro Lodi University of Oxford	Devices Chemical Tuning of Graphene Nanoribbon FETs
2.	Marein Rahn TU Dresden	Dynamics Resonant inelastic x-ray scattering as a probe of coherent valence dynamics
3.	Anuradha Vibhakar University of Oxford	Magnetism The magnetic structure and spin-flop transition in the A-site columnar-ordered quadruple perovskite TmMn <sub>3</sub> O <sub>6</sub>
4.	Sam Garratt University of Oxford	Magnetism Goldstone Modes in the Emergent Gauge Fields of a Frustrated Magnet
5.	Shivani Sharma STFC-RAL	Magnetism. Quadrupole ordering, structural phase transition, and crystal field excitations of YbRu <sub>2</sub> Ge <sub>2</sub>
6.	Hwanbeom Cho University of Oxford	Magnetism Emergence of Spin-Orbital Entangled Jeff=1/2 State in CuAl <sub>2</sub> O <sub>4</sub>
7.	Simon Clarke University of Oxford	Magnetism Structures, magnetism and Chemistry of Layered oxide chalcogenides
8.	Sven Friedemann University of Bristol	Magnetism Quantum Tricriticality in Ferromagnets
9.	Pascal Manuel ISIS Pulsed Neutron Source	Magnetism Gapless spin-liquid state in the structurally disorder-free triangular antiferromagnet NaYbO <sub>2</sub>
10.	Simen Sopp University of Oxford	Magnetism. Millikelvin Torque Magnetometry of Molecular Magnets
11.	Miska Elliot University of Oxford	Magnetism Experimental exploration of Dirac magnons in honeycomb magnets
12.	Jhuma Sannigrahi Loughborough University	Magnetism Commensurate to incommensurate magnetic phase transition in Honeycomb-lattice pyrovanadate Mn <sub>2</sub> V <sub>2</sub> O <sub>7</sub>

13.	Hangwen Guo Fudan University	Magnetism Designing emergent functionalities in complex oxides
14.	Aleksandra Krajewska Max Planck Institute for Solid State Research	Magnetism Multiple spin and orbital transitions in new pyrochlore ruthenate In <sub>2</sub> Ru <sub>2</sub> O <sub>7</sub>
15.	Amir Haghhighirad Karlsruhe Institute of Technology	Magnetism Lattice and spin dynamics in CrAs
16.	Timothy Ziman Institut Laue Langevin and CNRS	Magnetism Enhanced thermopower and critical fluctuations in antiferromagnetic films
17.	Michael Slota Oxford University	Magnetism Coherence transfer in magnetic graphene nanoribbons
18.	Elliot Christou University College London	Model Systems Lattice symmetry breaking and Dirac fermion quantum criticality
19.	Mikolaj Uryszek UCL	Model Systems Fermionic quantum criticality in two dimensional topological phase transitions
20.	Matthew Trott University of St Andrews	Model Systems Topological superconductivity near Lifshitz transitions in strongly spin- orbit-coupled metals.
21.	Attila Szabó University of Cambridge	Model Systems Seeing beyond the light: Semiclassical simulation of visons and photons in quantum spin ice
22.	Kathryn Boast University of Oxford	Other Outreach and Public Engagement with Quantum Materials Research
23.	Matthias Gutmann Rutherford Appleton Laboratory	Model Systems Crystal structure of CaBaFe <sub>4</sub> O <sub>7</sub>
24.	Xiaodong Zhou Fudan University	Other Imaging the nanoscale phase separation in V <sub>2</sub> O <sub>3</sub> with scanning Microwave Impedance Microscope (sMIM)
25.	Rocco Vitalone Columbia University	Dynamics Near-Field Pump Probe Spectroscopy of Mott Insulating Ca <sub>2</sub> RuO <sub>4</sub>

**TUESDAY 24 SEPTEMBER 2019**

1.	Mark Senn University of Warwick	Superconductivity. Improper Ferroelectric Polarisation in a Perovskite driven by Inter-site Charge Transfer and Ordering
2.	Pascal Reiss University of Oxford	Superconductivity. Finite electronic correlations and two-dome superconductivity across a clean nematic quantum phase transition
3.	Zachary Zajicek University of Oxford	Superconductivity. Evolution of the Fermi surfaces and electronic correlations in the high pressure phase of FeSe <sub>1-x</sub> S <sub>x</sub>
4.	Machteld Kamminga University of Oxford	Superconductivity Tailoring superconducting properties in intercalated layered chalcogenides
5.	Shiv J Singh University of Oxford	Superconductivity. Superconductivity dependence on the growth conditions in the stoichiometric CaKFe <sub>4</sub> As <sub>4</sub>
6.	Deepark Singh STFC RAL	Superconductivity Probing the superconducting ground state of noncentrosymmetric superconductors using muon spectroscopy
7.	Ke Zou University of British Columbia	Superconductivity. Superconducting FeSe monolayer on different oxide substrates
8.	Matthew Bristow University of Oxford	Superconductivity Upper critical fields in the nematic superconductor FeSe <sub>1-x</sub> S <sub>x</sub>
9.	Miguel Antonio Sulangi University of Florida	Superconductivity Phase Fluctuations and Disorder in the Superconducting Cuprates
10.	Liam Farrar University of Bath	Superconductivity Suppression of superconductivity and enhancement of anisotropy in ultra-thin flakes of FeSe
11.	Kai Liu Renmin University of China	Superconductivity Electronic structures of quasi-one-dimensional cuprate superconductors Ba <sub>2</sub> CuO <sub>3+δ</sub>
12.	Dimitrios Alexandropoulos University of Oxford	Synthesis Integrating multiple spintronic functionalities into single molecules

13.	Andrew Boothroyd University of Oxford	Topology Evidence for a magnetically-induced Weyl semimetal with a single pair of Weyl nodes
14.	Lapo Bogani University of Oxford	Topology Quantum effects in molecularly-tailored graphene
15.	Cephise Cacho Diamond Light Source	Topology ARPES on microscopic structures at Diamond beamline I05
16.	Kylie MacFarquharson University of Oxford	Superconductivity The effect of K dosing on the electronic structure of superconducting FeSe <sub>1-x</sub> S <sub>x</sub>
17.	Peayush Kumar Choubey Ruhr-University Bochum	Superconductivity Coexisting pair density wave and superconducting order in underdoped cuprates
18.	Roemer Hinlopen University of Oxford	Superconductivity Fermi surface topography of a nematic superconductor FeSe
19.	Y. H. Kwan University Of Oxford	Topology Quantum oscillations probe the Fermi surface topology of the nodal-line semimetal CaAgAs
20.	Oliver Squire University of Oxford	Superconductivity The effects of Co-doping on superconductivity and nematicity in FeSe
21.	Hechang Lei Renmin University of China	Topology Magnetic Topological Semimetals with Kagome Lattices
22.	Glenn Wagner University of Oxford	Other Quantum transport in bilayer graphene near charge neutrality beyond hydrodynamics
23.	Lucian Pascut Stefan Cel Mare University, Suceava	Other Predictive powers of the DFT + eDMFT method for electronic and structural properties