Magnetism 2024

Monday 25 March 2024

	Room: Turing	Room: Stephenson
9:15am-10am	**Registration and Arrival Refreshments**	
10am-11:15am	**Session 1: Correlated Systems** (SC: Joseph Betouras) **10am-10:30am: Invited Speaker Dr Ioannis Rusochatzakis.** Geometric frustration and Dzyaloshinskii-Moriya anisotropy in a layered spin-1/2 star lattice antiferromagnet **10:30am-10:45am: Paul Freeman.** Effect of the Commensurate to Incommensurate Crossover on the Magnetism in Charge-Stripe Ordered La2-xSrxNiO4 **10:45am-11am: Yuichi Saito.** Mid-infrared coherent excitation for room temperature phono-magnetism in antiferromagnetic FeBO3 **11am-11:15am: Joshua Bibby.** Synthesis of Atomically Flat Intrinsic Magnetic Topological Insulators using Magnetron Sputtering	**Session 2: Thin Films I** (SC: Guru Venkat) **10am-10:30am: Invited Speaker: Dr Oscar Lee.** Task-adaptive physical reservoir computing using magnetic skyrmions **10:30am-10:45am: Alex Vanstone.** Enhanced light absorption in nanomagnetic metamaterials **10:45am-11am: Debi Rianto.** Indirect Observation of Interlayer Coupling in Pt through Proximity-Induced Magnetization as a function of Pt Thickness in FM/Pt/FM Structure **11am-11:15am: Charles Swindells.** Spin Waves In Pt/NiFe Nanomagnetic Ring Arrays For Integrated Magnonic Reservoir Computing
11:15am-11:45am	**Morning Break**	
11:45am-1pm	**Session 3: Spintronics** (SC: Katherina Zeissler) **11:45am-12:15pm: Invited Speaker Dr Oto-obong Inyang.** Amorphous ferrimagnetic Rare-earth: Transitional metal (RE: TM) alloys for spintronic applications **12:15pm-12:30pm: Kevin Fripp.** Magnonic Fabry-Pérot resonators as programmable phase shifters and energy concentrators **12:30pm-12:45pm: Kelly Morrison.** Enhancement of spin Seebeck effect in Fe3O4/Pt thin films and bulk composites **12:45pm-1pm: Solveig Felton.** Large temperature hysteresis of a MnIII spin-crossover complex with spontaneous chiral resolution	**Session 4: Thin Films II** (SC: Trevor Almeida) **11:45am-12pm: Emily Heppell.** Controlling the spin structure of antiferromagnetic NiO using a ferromagnetic layer **12pm-12:15pm: Lin Huang.** Temperature gradient-drive motion of magnetic domains in a chiral magnetic metal multilayer **12:15pm-12:30pm: Freya Johnson.** The Impact of Local Strain Fields in Non-Collinear Antiferromagnetic Films **12:30pm-12:45pm: Michał Grzybowski.** Wurtzite MnSe - epitaxy, optical, electronic and altermagnetic properties

1pm-2pm	**Lunch, Poster Session 1 and Exhibition**	
2pm-2:30pm	**IEEE UK and Ireland Magnetic Chapter AGM**	
2:30pm-3:30pm	**Plenary Speaker: Professor Stephen Blundell.** Probing singlet states in frustrated magnets with muons	
3:30pm-5:15pm	**Session 5: Computation and theory** (SC: Ioannis Rusochatzakis) **3:30pm-4pm: Invited Speaker Professor Samir Lounis.** Spinorbitronics in the nanoworld: a first-principles view on magnetic skyrmions **4pm-4:15pm: Ian Vidamour.** Device-Agnostic Dynamic Learning for Spintronic Platforms **4:15pm-4:30pm: Thomas Moore.** Precise transport of skyrmions by surface acoustic waves **4:30pm-4:45pm: Daan Arroo.** Monopole Density-Jump Transitions in Spin Ice **4:45pm-5pm: Riyajul Islam.** Electronic structure and magnetocrystalline anisotropy of W-type SrFe18O27 hexaferrite	**Session 6: High Frequency Spin Dynamics** (SC: Paul Keatley) **3:30pm-4:15pm: IEEE Distinguished Lecturer Satoru Emori.** Pumping Iron: Revealing Counterintuitive Mechanisms of Magnetization Dynamics **4:15pm-4:30pm: Nikolay Vovk.** THz-driven dynamics of spins and orbitals in TbFeO3 **4:30pm-4:45pm: Daniel Prestwood.** Low field spin wave resonance of Yttrium Iron Garnet stripe domains **4:45pm-5pm: Jack Bollard.** Stacking spinning tops: How to distinguish magnetic dynamics in chemically identical layers **5pm-5:15pm: Jack C. Gartside.** Ultrastrong Dipolar Magnon-Magnon Coupling and Magnon Frequency Combs in a Multilayered '3D' Artificial Spin Ice
5:15pm-6:30pm	**Poster Session 2, Refreshments and Exhibition**	
6:30pm-10pm	**Conference Dinner** National Space Centre, Exploration Drive, Leicester, LE4 5NS (buses are arranged to transport delegates to and from the venue)	

Tuesday 26 March 2024

	Room: Turing	Room: Stephenson
9am-10am	**Wohlfarth Lecture: Professor Dr Karin Everschor-Sitte.** Let's TWIST again. Topological Whirls In SpinTronics	
10am-10:30am	**Morning Break**	
10:30am-12:15pm	**Session 7: Intelligent Computing** (SC: Jack Gartside) **10:30am-11:15am: IEEE Distinguished Lecturer Kerem Çamsarı.** Probabilistic Computing with p-bits: Optimization, Machine Learning and Quantum Simulation **11:15am-11:30am: Guru Venkat.** Machine learning using a 3D artificial spin ice lattice **11:30am-11:45pm: Daniel Bromley.** High-Fidelity, Low-Power All-Optical Magnetic Switching in Dense Nanomagnetic Networks **11:45am-12pm: Alexander Welbourne.** Towards Racetrack Neural Networks	**Session 8: Spintronics and 2D materials** (SC: Fasil Dejene) **10:30am-11am: Invited Speaker Dr Hariom Jani.** Designing topological antiferromagnetic solitons **11am-11:15am: Verena Brehm.** Topological magnon gap engineering in layered van der Waals ferromagnet CrI3 **11:15am-11:30am: Charlie Freeman.** Spin Dynamics and Ultrastrong Magnon-Magnon coupling in the vdW Antiferromagnet CrPS4 **11:30am-11:45am: Maciej Dąbrowski.** Time-resolved microscopy of magnetization dynamics in a 2D van der Waals magnet **11:45am-12pm: Amir Mehrnejat.** Direct measurement of spin signal in a two-dimensional device
12:15pm-1:20pm	**Lunch, Poster Session 3 and Exhibition**	
1:20pm-1:30pm	**Poster Award Presentations**	
1:30pm-2pm	**EPSRC Talk by James Dennis**	
2pm-2:30pm	**Magnetism AGM**	
2:30pm-3pm	**Afternoon Break**	

3pm-5pm	**Session 9: Low-dimensional Magnetism** (SC: Ivan Vera Marun) **3pm-3:45pm: IEEE Distinguished Lecturer S.N. Piramanayagam**. Brain-Inspired Computing Using Magnetic Domain Wall Devices **3:45pm-4pm: Servet Ozdemir.** Kondo spin lattice signatures on interface of epilayer platinum/cobalt stacks and organic molecules **4pm-4:15pm: Hari Babu Vasili.** Large and Tunable Spin Hall Magnetoresistance at YIG/PtMn/C60 Interfaces **4:15-4:30pm: Yuting Liu.** Cryogenic in-memory computing using giant and tunable anomalous Hall effect in magnetic topological insulators **4:30pm-4:45pm: Daniel Roe.** Monitoring Ionic Diffusion from CoB in Molecular layers **4:45pm-5pm: Malcolm Connolly.** Nanomagnet-induced synthetic spin-orbit coupling in a hybrid superconductor-semiconductor nanowire island	**Session 10: Novel Techniques in Magnetism** (SC: Kelly Morrison) **3pm-3:15pm: Daniel Roe.** Development of In-Situ FMR PNR Measurement Technique **3:15pm-3:30pm: Sara Villa.** Investigating the effect of Ga+ ion irradiation on a synthetic antiferromagnetic multilayer of [Pt/CoFeB/Ru/Pt/CoB/Ru] **3:30pm-3:45pm: Joseph Askey.** Direct visualization of domain wall pinning in sub-100nm 3D magnetic nanowires with cross-sectional curvature **3:45pm-4pm: Andrew Caruana.** Polarised neutron reflectivity to resolve interfacial spin canting in a ferromagnetic metal-semiconductor bilayer **4pm-4:15pm: Russell Ewings.** Symmetry lowering and magnetism in caesium superoxide **4:15pm-4:30pm: Holly Holder.** All-optical & surface-probe control of chiral spin textures in artificial spin ice **4:30pm-4:45pm: Aurys Silinga.** Advanced transmission electron microscopy of the three-dimensional magnetization distribution of a pinned domain wall in a Sm-Co-based permanent magnet **4:45pm-5pm: Aurys Silinga.** Focused Electron Beam Induced Deposition of 3D nanostructures for magnetic racetrack memory