Programme

Day 1 (Wednesday 5th June)

9.30: Arrival and registration (Reception of the Technocentre)

10.00-12.20: Chair: TBD

10.10: Invited Speaker: Robert Kingham (Imperial College London)
Extended-MHD phenomena and modelling in high energy density plasmas

11.00: Jordan Talbot (Northumbria University)
Oscillatory Reconnection: A Comparison With Steady-State Reconnection Models

11.20:

Will Bloomer (Coventry University)
Coriolis-centrifugal convection with non-isothermal top and bottom boundaries

12.30-13.30: Lunch

13.30-15.00: Chair: Susanne Horn

13.30:

Rishav Agrawal (University of Liverpool)
Regimes of rotating convection in a tangent cylinder

Alban Pothérat (Coventry University)
Magnetic Taylor-Proudman constraint explains flows into tangent cylinders

15.00-15.30: Break

15.30-17.00: Convection and Transition Chair: Robert Kingham

Curtis Saxton (University of Leeds)
Spatially logarithmic simulations of extreme thermal convection and convective fingering

15.50: Hollis William (King Abdullah University of Science and Technology)
Formation of ironsand stalactites in a magnetic field

16.10: Rishav Raj (Coventry University)
Study of Transitional pipe flow characteristics in particulate pipe flow

Poster presentation session (2min slides/person): Ankan Banerjee, Gert Botha, Jacopo Gianfrani, Jo Kershaw, Samy Lalloz, Jack Reid, Ljhar Rusli, Curtis Saxton, Ryan Smith

17.00: Lab tour session

17.30: Wine and Cheese Reception at the Techno Centre – including Poster discussion

Day 2 (Thursday 6th June)

9.30-11.00: Dynamo Theory Chair: TBD

9.30: Invited Speaker: Frank Stefani (HZDR)
Precession, tides, et cetera: Astronomically forced and synchronized dynamos

10.20: Lucas Gosling (University of Leeds)
Magnetic buoyancy and the strong-gradient magneto-Boussinesq equations

10.40: Yasin Qazi (Newcastle University)
Nonlinear states of the magnetic buoyancy instability

11.00-11.30: Break

11.30-12.30: MHD Waves Chair: Joanne Mason

11.30: Samy Lalloz (Coventry University)
Revisiting historical Alfvén waves experiments in liquid metals: genuine wave or just a mirage?

11.50: Muhammad Ishaq (Coventry University)
Exploring nonlinear Alfvén wave interactions and energy dynamics in magnetized plasma

12.10: Matthew Vine (Northumbria University)
Parametric instabilities of Alfvén-gravity waves

12.30-13.30: Lunch

13.30-15.00: Solar Corona Heating Chair: Frank Stefani

13.30:Invited Speaker: Ramada Sukarmadji (Northumbria University)
Numerical experiments on the role of MHD waves in triggering nanojets

14.20: Luiz Schiavo (Northumbria University)
Numerical investigation of self-similar solutions for time-dependent reconnection

14.40: Hermanthi Miriyala(Northumbria University)
The coronal power spectrum from MHD mode conversion above sunspots

15.00: Thomas Neukirch (University of St Andrews)
Magnetic field extrapolation using analytical 3D MHS equilibrium solutions

15.20-15.50: Break

15.50-16.50: Instability and Convection Chair: Chris Pringle

15.50: Yue-Kin Tsang (Newcastle University)
Oscillatory double-diffusive convection in a rotating spherical shell

16.10: Manohar Teja Kalluri (University of Exeter)
Self-similarity and non-linear growth of magnetic Rayleigh-Taylor instability

16.30: Luke Gostelow (University of Leeds)
Disruption of Kelvin-Helmholtz vortices in QG shallow-water MHD

19.00: Drinks Reception at St Mary's Guildhall

20.00: Conference Dinner at St Mary's Guildhall

Day 3 (Friday 7th June)

9.30-11.30: Rotating Flows Chair: Alban Pothérat

9.30: Julie Jacob Thomas (Newcastle University)
Modelling Superfluid Dynamics in Neutron Stars in 3D

9.50: Declan Keogh (Coventry University)
Tornado-like vortices in Magneto-Coriolis-Centrifugal Convection

10.10: Daining Xiao (Durham University)
Winding and magnetic helicity in periodic domains

10.30: Susanne Horn (Coventry University)
The Elbert range of turbulent rotating magnetoconvection

10.50: Calum Skene (University of Leeds)
Weakly nonlinear analysis of the onset of convection in rotating spherical shells

11.10: Closing remarks and prizes

11.30: Lab Tour session