

Fifty years after Roberts' MHD: Dynamos and
planetary flows today
at the Royal Astronomical Society, Burlington House,
Piccadilly, Mayfair, London W1J 0BQ

Programme

Thursday 16th November.

9.30 Coffee & Poster set-up & Registration

Keynote

10.00 Paul Roberts: Magnetostrophy

11.00 Coffee

Fundamentals

11.20 Andrew Soward: The Equatorial Ekman Layer

11.50 Dominique Jault: Torsional waves in a rotating spherical shell: transmission and reflection in the Earth's outer core

12.20 Frank Stefani: Dynamos, instabilities, inverse problems: Paul Roberts' legacy for experimental MHD

12.50 Lunch

Planets

2.00 Richard Kerswell: Can libration maintain Enceladus's ocean?

2.30 Jeremy Bloxham: Juno at Jupiter: Initial Magnetic Field Results

3.00 Hao Cao: Saturn's Internal Magnetic Field Revealed by Cassini Grand Finale

3.30—5.00 Coffee & Posters

5.00 End

6.30 Pre-dinner drinks at the National Café at The National Gallery, Trafalgar Square WC2N 4DN.

Friday 17th November.

Dynamos

9.00 David Gubbins: Dipole Oscillations and Stability of the Geodynamo

9.30 Emmanuel Dormy: Strong Field Spherical Dynamos

10.00 Weijia Kuang: Decadal polar motion and electromagnetic core-mantle coupling: implications from geodynamo simulations

10.30 Coffee & Posters

Waves

11.30 Kumiko Hori: Waves in spherical dynamo simulations and their implications for planetary dynamos

12.00 Chris Jones: Rotating magnetic waves in stably stratified layers

12.30 Lunch

Convection

1.30 Keke Zhang: Asymptotic theory for equatorially antisymmetric convection in rotating fluid spheres

2.00 Michael Calkins: Balanced models for rapidly rotating convection-driven magneto-hydrodynamics

2.30 Coffee & Posters

3.20 Yufeng Lin: Cascade to large-scale vortices in spherical rotating convection

3.50 Large-scale flows and magnetic fields produced by rotating convection in a quasi-geostrophic model in spherical geometry

4.20 Closing remarks

4.30 End