## UK MHD 95

## St. Andrews University, Mathematical Institute

## Programme

# Friday 19 May

VENUE: Lecture Theatre B (1st Floor)

Chair: Bernie Roberts	
10.30-11.00	COFFEE (Seminar Room 1A, Ground Floor)
11.00-11.20	Alastair Rucklidge (Cambridge) The Shearing Instability in Three-dimensional Magnetoconvection.
11.20-11.40	Paul Coffey (Newcastle) The Effects of Bumps Upon Magnetoconvection
11.40-12.00	Glenn Greed (Exeter) Two and Three Dimensional Convection in a Rotating Annulus.
12.00-12.20	Mitchell A Berger (University College London) Cascades in MHD turbulence in the presence of a mean field.
12.20-12.40	Axel Brandenburg (Nordita)  Dynamo generated turbulence – the origin of turbulence in discs
12.40-13.00	Paul Dellar (Cambridge) Blob dynamics in the Earth's outer core.
13.00-14.15	LUNCH
Chair: Andrew Soward	
14.15-14.35	David Gubbins (Leeds) The Geodynamo: Help from observations
14.15-14.35 14.35-14.55	
	The Geodynamo: Help from observations  Alexander Anufriev & Sergey Starchenko (Newcastle)
14.35-14.55	The Geodynamo: Help from observations  Alexander Anufriev & Sergey Starchenko (Newcastle)  Boundary conditions for the Geodynamo problem in the inviscid limit.  Atta Chui (Cambridge)
14.35-14.55 14.55-15.15	The Geodynamo: Help from observations  Alexander Anufriev & Sergey Starchenko (Newcastle)  Boundary conditions for the Geodynamo problem in the inviscid limit.  Atta Chui (Cambridge)  The minimum energy state of a magnetic flux rope:  Konrad Bajer (Cambridge)

### Chair: David Fearn

Thomas Neukirch (St. Andrews) 16.15-16.35 V. 45 18 05 Self-consistent analytical 3D MHD equilibria Apollonia Schonfelder (St. Andrews) 16.35-16.55 Current Sheet Prominence Models in Twisted Flux Tubes. 17-40 17-30 Ken Hutcheson (Glasgow) 16.55-17.15 Some general stability properties of toroidal magnetic fields. 17.25 17:45 Chris Jones (Exeter) 17.15-17.35 On small Roberts number magnetoconvection in rapidly rotating systems. 17:45 18:05.

1<del>7.35</del> CLOSE

#### Saturday 20 May

12.10-12.30

Saturday 20 May	
Chair: Eric Priest	
9.00-9.20	Ralf Kaiser (Universitaet Bayreuth) On the invisible dynamo.
9.20-9.40	R.G.Davis (Edinburgh) Geomagnetic determination of quasi-steady flow at the surface of the Earth's core in the frozen-flux approximation.
9.40-10.00	Luca Del Zanna (St. Andrews)  Dynamic MHD equilibria. An application to solar quiescent prominences.
10.00-10.20	Stephen Drew (Exeter) Compressible convection in a rapidly rotating fluid layer.
10.20-10.40	Ian Mann (St. Andrews) Finite Lifetime of Ideal Poloidal Alfven Waves.
10.40-11.10	COFFEE
Chair: Alan Hood	
11.10-11.30	Louis Tao (Cambridge) On the suppression of thermal conduction by magnetic fields
11.30-11.50	Klaus Galsgaard (St. Andrews) Numerical 3D MHD: Null Points and Reconnection.
11.50-12.10	Graeme Sarson (Universitaet Bayreuth) The interaction of differing azimuthal modes in the induction of

Instability of Twisted Fields to Magnetic Buoyancy

Andrew McLeod (Newcastle)

magnetic fields