

Fluid flow and magnetic dynamos: From the laboratory to the stars and planets

SUNDAY		14:00	17:20	Pick-up transfert from the train station		
		18:45	19:30	IceBreaker		
		19:30	20:30	Dinner		
MONDAY	Morning	Chair: Steve Tobias				
		09:00	09:15	Carmen Brenig		Introduction to the CSF & Monte Verita
		09:15	09:50	Benjamin Miquel		From asymptotic reduced equations for rapidly rotating convection to rescaled direct numerical simulations at small but finite Ekman numbers
		09:50	10:10	Dali Kong		Rapidly Rotating, Self-gravitating Geophysical/Astrophysical Fluid: Conduction State, Thermal Instability and Turbulence
		10:10	10:40			Coffe Break
		10:40	11:15	Kuan Li		Direct Statistical Simulation: An alternative approach to Turbulence
		11:15	11:50	Laura Currie		Rotating and stratified convection: mixing length theory and simulations
		11:50	12:25	Thierry Alboussière		Bounds on dynamos with mechanical or thermal forcing
		12:30	16:00			Lunch + Free Time
	Afternoon	Chair: Andy Jackson				
		16:00	16:15	TBA		Reminiscences and the context of JB Taylor's (1963) Paper
		16:15	16:35	Hezekiah Grayer		On the well-posedness of the Taylor equations
		16:35	16:55	Longhui Yuan		Some prototypical solutions to the Taylor-Braginsky system
		16:55	17:30			Coffee Break
		17:30	18:05	Yufeng Lin		Geodynamo Simulations in an early-Earth model
		18:05	18:40	Sanja Panovska		Long-term evolution of the geodynamo: Insights from paleomagnetic modelling
		18:40	19:00	Robert Teed		Scaling of strong field spherical dynamos
		19:15	20:45			Dinner
TUESDAY	Morning	Chair: Phil Livermore				
		09:00	09:20	Luke Gostelow		Magnetoconvection and transitions in Earth-like dynamos
		09:20	09:40	Takumi Kera		Kinetic energy transfer during polarity reversals in a numerical dynamo simulation
		09:40	10:15	Chris Jones		Low inertia reversing geodynamos
		10:15	10:40			Coffe Break
		10:40	11:15	Fabian Burmann		Early Earth dynamos - regimes and scaling
		11:15	11:50	Bruce Buffett		Excursions, Reversals and Secular Variation: Different Expressions of a Common Mechanism?
		11:50	12:25	Mike Calkins		Asymptotics of dynamo action in a rotating spherical shell
		12:30	16:00			Lunch + Free Time
	Afternoon	Chair: Krista Soderlund				
		16:00	16:35	Jeremy Bloxham		The magnetic field of Jupiter
		16:35	17:10	Tristan Guillot		Moist Convection Inhibition: Consequences for Planetary Atmospheres and Interiors
		17:10	17:30	Ludovic Huguët		Onset of dynamo action in a quasi-full sphere: implication for the early magnetic field of proto-planets
		17:30	17:50	Paul Prusina		Planetary dynamos driven by semiconvection in stably stratified layers
		17:50	18:10			Coffee Break
		18:10	18:30	Johannes Wicht		Dynamo Action in the Outer Atmospheres of Hot Jupiters
		18:30	18:50	Paula Wulf		On the meaning of the dynamo radius in giant planets with stable layers
		18:50	19:25	André Gieseke		Harmonically forced and synchronized dynamos
		19:30	21:00			Dinner

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WEDNESDAY	Morning	Chair: Jeremy Bloxham			
		09:00	09:35	Nathanaël Schaffer	Numerical simulations of liquid planetary interiors: perspectives from a user and developer.
		09:35	09:55	Steve Tobias	Convection and Dynamos on a Logarithmic Lattice
		09:55	10:30	Philippe Marti	Spectral dynamo simulations in the age of superchips
		10:35	11:00		Coffe Break
		11:00	11:20	Phil Livermore	Physics-informed neural networks: a new tool for exploring planetary magnetism
		11:20	11:40	Andrei Igoshev	A connection between proto-neutron-star Tayler- Spruit dynamos and low-field magnetars
		11:40	12:00	Stefano Maffei	Fully Spectral Anelastic Calculations for Thermal Convection Studies in Giant Planets
		12:15	13:45		Lunch
		13:45	18:45		Excursion
		18:45	22:00		Conference Dinner
THURSDAY	Morning	Chair: Matthew Browning			
		09:00	09:35	Valentin Skoutnev	Magnetic Fields in Stellar Radiative Zones
		09:35	09:55	Craig Duguid	Dynamo action in the solar tachocline
		09:55	10:15	Loren Matilsky	Dynamo Confinement of a Radiatively Spreading Tachocline
		10:15	11:05		Coffe Break
		11:05	11:40	Geoff Vasil	The magnetic near-surface Sun
		11:40	12:00	Sonny Burrel	Instabilities in Solar Convection Zones
		12:15	16:00		Lunch + Free Time
	Afternoon	Chair: Laura Currie			
		16:00	16:20	Tom Joshi-Hartley	Heat Transport and Dissipation in 2.5D Rotating Internally Heated and Cooled Convection
		16:20	16:55	Ansgar Reiners	Measuring magnetic fields in stars and exoplanets
		16:55	17:30	Yuto Bekki	Effects of small-scale dynamo on rotating columnar convection in the solar and stellar convection zones
		17:30	17:55		Coffee Break
		17:55	18:30	Antoine Strugarek	Global 3D simulations of solar and stellar dynamos: cycles, convective conundrum and spot formation
		18:30	18:50	Neil Lewis	Diffusion-Free Dynamics in Rotating Spherical Shell Convection Driven by Internal Heating and Cooling
		18:50	19:25	Krista Soderlund	Magnetohydrodynamic control of differential rotation and dynamo transitions: Rise of the local magnetic Rossby number
		19:30	21:00		Dinner
FRIDAY	Morning	Chair: Jerome Noir			
		09:00	09:35	Franck Plunian	Anisotropic dynamos : from theory to experiment
		09:35	09:55	Andreas Tilgner	Numerical simulation of centrifuged convection cells filled with gas
		09:55	10:15	George Mamatsashvili	Dynamo action driven by precessional turbulence
		10:15	10:45		Coffe Break
		10:45	11:20	Michael Le Bars	Iron Snow in Planetary Interiors
		11:20	11:40	Ashish Mishra	Strong and weak dynamo regimes in Taylor-Couette flows
		11:40	12:00	Xing Wei	Dynamo and tide
		12:00	13:30		Lunch

POSTERS

POSTERS ALL WEEK

Meyer			poster	Modelling the magnetic fields of Uranus and Neptune
Arslan			Poster	On the quest for bounds in rotating flows
Lennart			Poster	Reflection-transmission problem for inertial waves at geostrophic shear layers
Loncar			Poster	Stochastic modelling of Jupiter's magnetosphere
Dobrynina			Poster	Systematic parameter study of Ice Giant-like dynamos and magnetic fields
Maffei			Poster	Fully Spectral Anelastic Calculations for Thermal Convection Studies in Giant Planets
Giraud			Poster	Inertial wave drag generated by topography
Jackson			Poster	Psilo-geostrophy (PsG) for the Earth's core: Fundamentals
Maitra			Poster	Towards spectral MHD in aspherical domains
Lewis			Poster	A New Approach to Studying Polar Atmospheric Dynamics on Jupiter
Zhang			Poster	Bounding Mean Dissipation Rates in Internally Heated Quasi-Geostrophic Systems
Wei Fan			Poster	
Gomez			Poster	
Gomez			Poster	
Schaeffer			Poster	
Burmann			Poster	
Schaeffer			Poster	