NBIA Workshop on Protoplanetary Disks O. Gressel, C. McNally, G.Murphy, & M. Pessah



Niels Bohr Institute, Aug 4 - 8, 2014



The Niels Bohr International Academy

VILLUM FOUNDATION 💥





PRACTICAL INFO

- Coffee break Aud. C (registration)
- Lunch NBI canteen (take bag & show badge)
- Restrooms downstairs & NBIA (down the hall)
- Espresso machine NBIA lounge (keep walking)
- Quiet room for work (NBIA downstairs)

Map of Niels Bohr Institute

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PRACTICAL INFO - Speakers

• Talk slots are 30 min. long TOTAL (22+8)

• Discussion- panel-type after each session

Please upload talk to INDICO (see website)

WiFi Networks
Eduroam - use your user name
Conference - ask for password
KU Guest - use enclosed ticket

PRACTICAL INFO - Moderators

: Sessions / : Talks : Breaks

Non-ideal MHD, Stability, and Dissipation in Protoplanetary Disks from Monday, August 4, 2014 (11:30) to Friday, August 8, 2014 (13:30)

Friday August 9, 2014 Monday, August 4, 2014 Tuesday, August 5, 2014 Thursday, August 7, 2014 09:00 Wednesday Morning - James Stone 11:30 Registration (until 12:30) 09:00 Tuesday Morning - Richard Nelso 09:00 Thursday Morning - Mark Wardle (MacquarieUniversity) 99:00 Friday Morning - Shu-ichiro (Queen Mary University of London) (until (Princeton University) (until 12:30) (until 12:30) nutsuka (Nagoya University) (until 12:30 --- Welcoming Lunch ---12:30) 12:30) 09:00 Magnetic Coupling in Protoplanetary 09:00 Signatures of accretion and MRI in protostellar disks -09:00 Magnetic drift in protoplanetary and Disks - Neal Turner (JPL/Caltech) Jeremy Goodman (Princeton University) 09:00 Magnetohydrodynamics of planetcircumplanetary discs - Mark Wardle disk interaction - James Stone 09:45 Magnetic turbulence in inner radii of 09:30 Observational Signatures of MRI-driven Turbulence in (Macquarie University) (Princeton University) protoplanetary disks - Shigenobu Hirose Protoplanetary Disks: Connecting Numerical Simulations with 09:30 Global Multifluid Simulations of the (JAMSTEC) ALMA - Jacob Simon (Sagan Fellow, Southwest Research 09:30 Dust particle dynamics in MRI Magnetorotational Instability in Institute, JILA/University of Colorado) turbulent disks with ambipolar --- Coffee Break ---10:15 Protoplanetary Disks - Donna Rodgers diffusion - Zhaohuan Zhu --- Coffee Break ---10:00 Lee (Dublin Institute for Advanced (Princeton University) 10:45 Temperature Fluctuations and Current Studies) 10:30 The Effects of Far-UV Irradiation on the Thermal Structure of Sheets in Protoplanetary Disks - Colin 10:00 --- Coffee Break ----McNally (NBIA, NBI) Disks - Jon Ramsey (Universität Heidelberg, Zentrum für 10:00 Magnetic Self-Organization in Hall-Astronomie, Insitut für Theoretische Astrophysik) 10:30 Interaction of the Streaming Dominated Magnetorotational 11:15 Nonlinear Ohm's law: electric heating of Instability and the Large-scale Gas Turbulence - Matthew Kunz (Princeton plasmas and its effect on MHD in 11:00 Structures and Dynamics in the Outer Regions of Turbulent Dynamics - Chao-Chin Yang (Lund University) protoplanetary disks - Satoshi Okuzumi Protoplanetary Disks. - Mario Flock (DSM/IRFU/SAP CEA) University) (Tokyo Institute of Technology) 10:30 --- Coffee Break ----11:30 Discussion VI 11:00 How gas turbulence influences 11:45 Discussion IV 11:00 Thanatology in protoplanetary discs -12:30 ---- Lunch Break ---planet formation - Anders Geoffroy Lesur (CNRS/IPAG) Johansen (Lund University) 12:30 ---- Lunch Break ----11:30 Gas Dynamics in Protoplanetary Disks 11:30 Workshop Wrap-Up - Philip including Ohmic, Hall and Ambipolar Armitage (University of Colorado) Diffusion - Xuening Bai (Harvard---- Closing Remarks ---12:15 Smithsonian Center for Astrophysics) 12:30 ---- Lunch ----12:00 Discussion II 12:30 ---- Lunch Break ----PM 13:45 Opening Remarks (until 14:00) 14:00 Tuesday Afternoon - Jeremy 14:00 Wednesday Afternoon - Philip 14:00 Thursday Afternoon - Hubert Klahr (MPIA) (until 17:00) Goodman (Princeton University) (until Armitage (University of Colorado) (until 14:00 Implications of dead zones for planet formation - Philip 14:00 Monday Afternoon - Mordecal-Mark Mar 16:30) 16:30 Low (American Museum of Natural Armitage (University of Colorado) History) (until 17:45) 14:00 Exploring the Saturation of the MRI via 14:00 Linear stability of accretion disks under 14:30 Meteoritic and planetary data constrain models of disk Weakly Nonlinear Analysis - Susan the influence of stratification and thermal 14:00 The Formation and Evolution of evolution, support magnetorotational instability models with Clark (Columbia University) relaxation - Hubert Klahr (MPIA) Protoplanetary Disks: The Critical Effects non-uniform alpha - Steve Desch (Arizona State University) of Non-Ideal Magnetohydrodynamics -14:30 Magnetorotational instability saturation 14:30 Nonlinear evolution of the vertical shear 15:00 --- Coffee Break ---Shu-ichiro Inutsuka (Nagoya University) and transition to anisotropic turbulence instability in accretion discs - Richard Gareth Murphy (Niels Bohr International Nelson (Queen Mary University of 15:30 Hyper-global zoom-in simulations of protostellar disc 14:45 Mass transport regimes in the solar Academy, NBI) London) formation - Troels Haugbølle (NBI & StarPlan) protoplanetary disk - evidence from meteoritic components - Martin Bizzarro --- Coffee Break ----15:00 --- Coffee Break ----16:00 The demise of the SAD model - Åke Nordlund (Niels Bohr 15:00 (Centre for Star and Planet Formation) Institute & StarPlan) 15:30 Locality and not locality in magnetized 15:30 On Vertically Global, Horizontally Local --- Coffee Break ---15:15 Models for Astrophysical Disks - Martin 16:30 Discussion VII accretion flows - Alexander Hubbard (American Museum of Natural History) Pessah (Niels Bohr International 15:45 Protostellar accretion disks and their Academy) outflows - Raguel Salmeron (The 16:00 Discussion III 16:00 Discussion V Australian National University) 16:30 Conference Dinner (until 21:00) 16:15 Disk winds driven by MRI -- some aspects (Restaurant) 16:30 Beer in the Park (until 17:30) (n/a) and applications -- - Takeru Suzuki (Department of Physics, Nagoya University) 16:45 Global simulations of protoplanetary discs with Ohmic resistivity and ambipolar diffusion - Oliver Gressel (NBIA) 17:15 Discussion I

SOCIAL EVENTS

• Picture - Tuesday 10:30 - before coffee break

• Dinner at Lousiana - Tuesday 16:30 - 21:00

• Beer in Fælledparken - Wednesday 16:30

Restaurants - make reservations



Enjoy the workshop!

