

## Fluid Dynamics Seminar

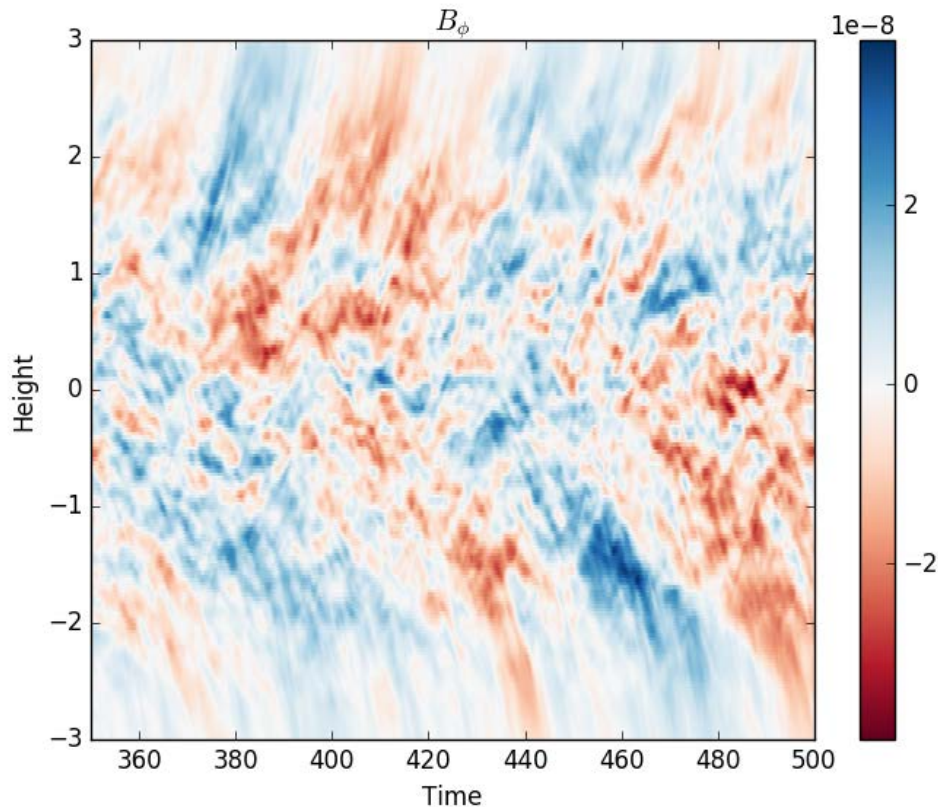
Date: Wednesday, October, 18, 2017 at 13:00

Location: ZARM, Room 1730

### Magnetic field evolution in accretion disks: Insights from local and global numerical simulations

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Accretion flows are observed around a variety of gravitational objects ranging from young stars to supermassive black holes. Some of these accretion disks are ionized enough to allow for strong coupling of magnetic fields to the fluid. Understanding the long term evolution of these disks is important for insights into a wide spectrum of astrophysical problems such as planet formation, structure of active galactic nuclei, dwarf novae, etc. In this talk, I will summarize key results from some of my previous work based on local shearing box simulations as well as ongoing global simulations of magnetized disks. I will concentrate on the evolution of large scale magnetic fields and highlight some of the open issues that require more work, both theoretical and numerical.