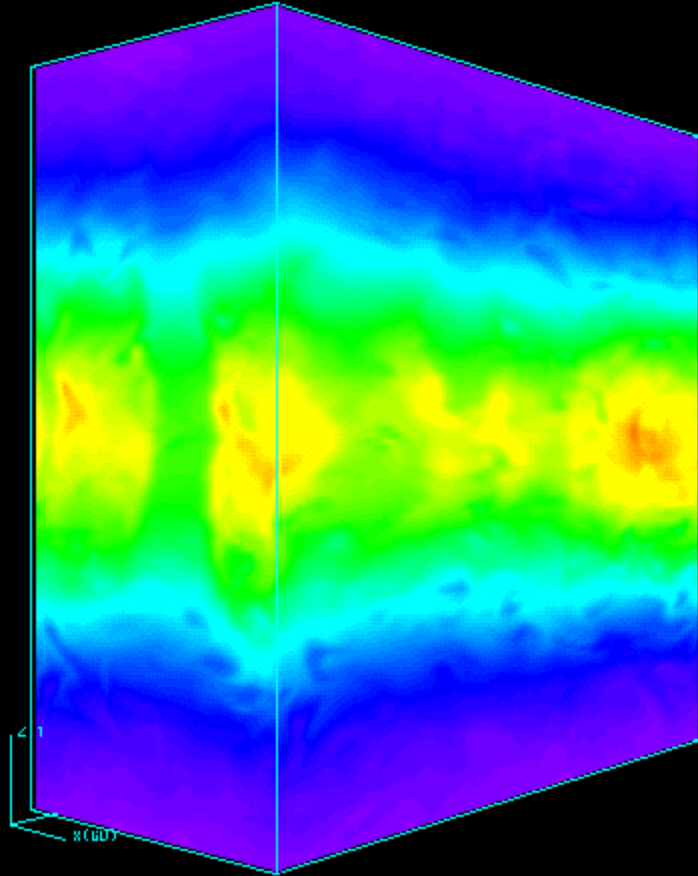
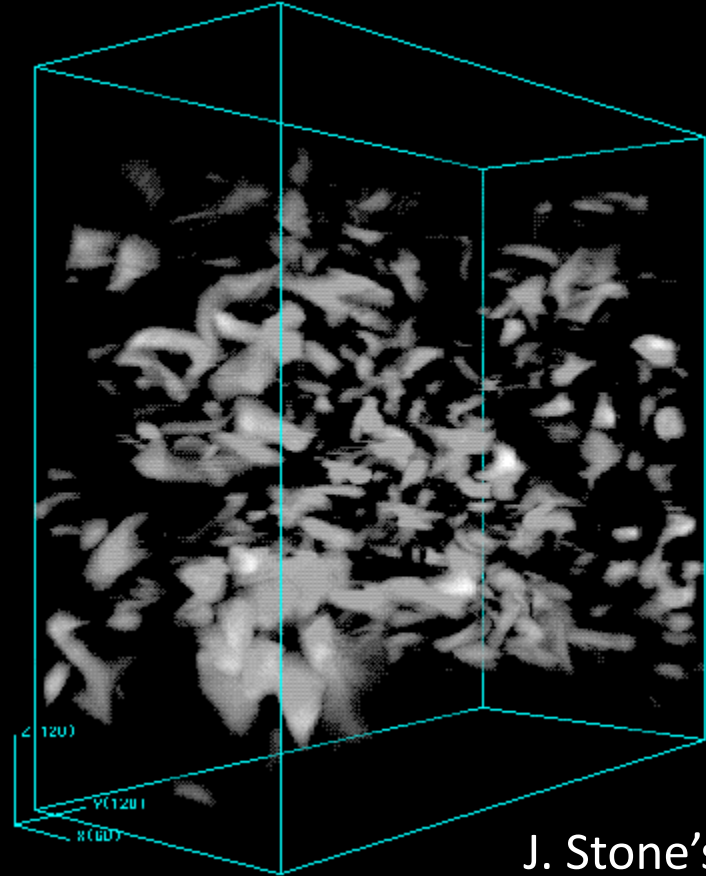


MRI = Turbulent Magnetic Pressure

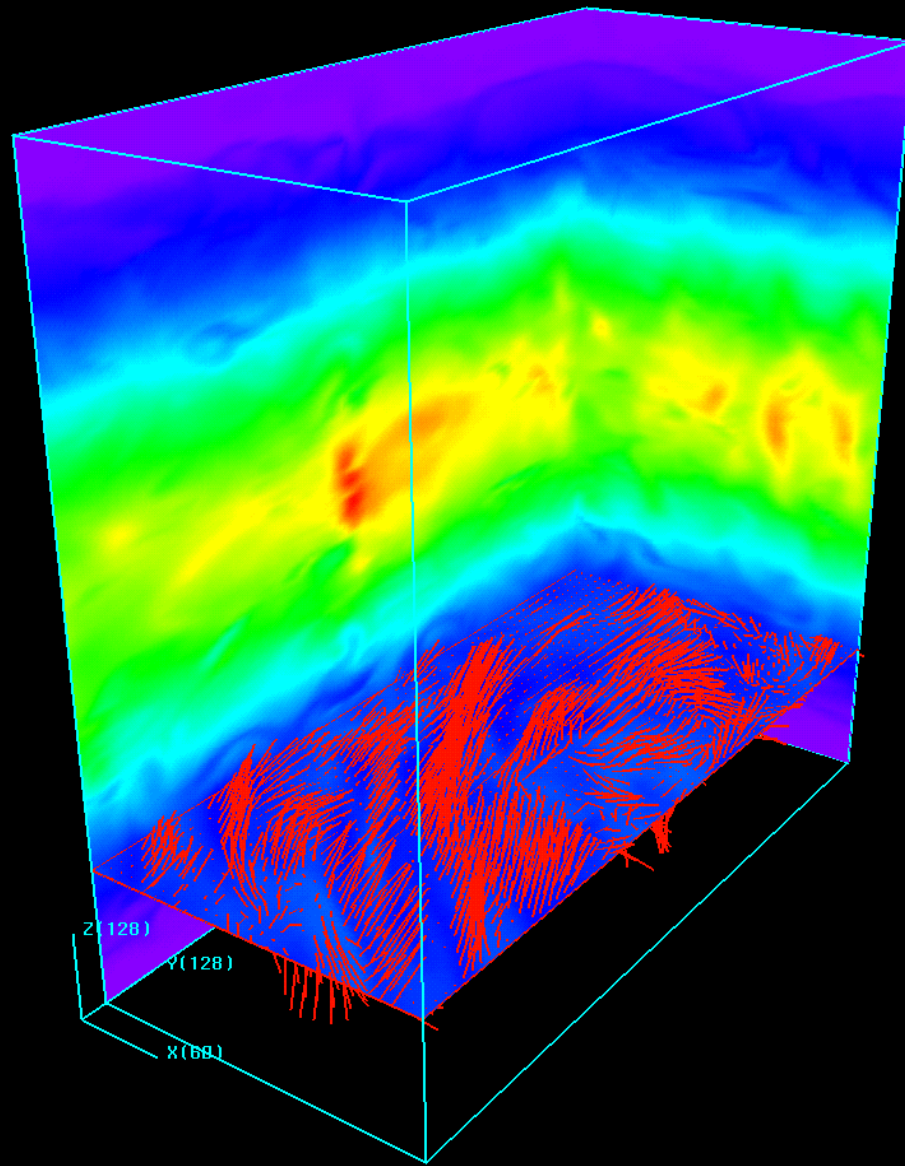


Density



Magnetic Pressure

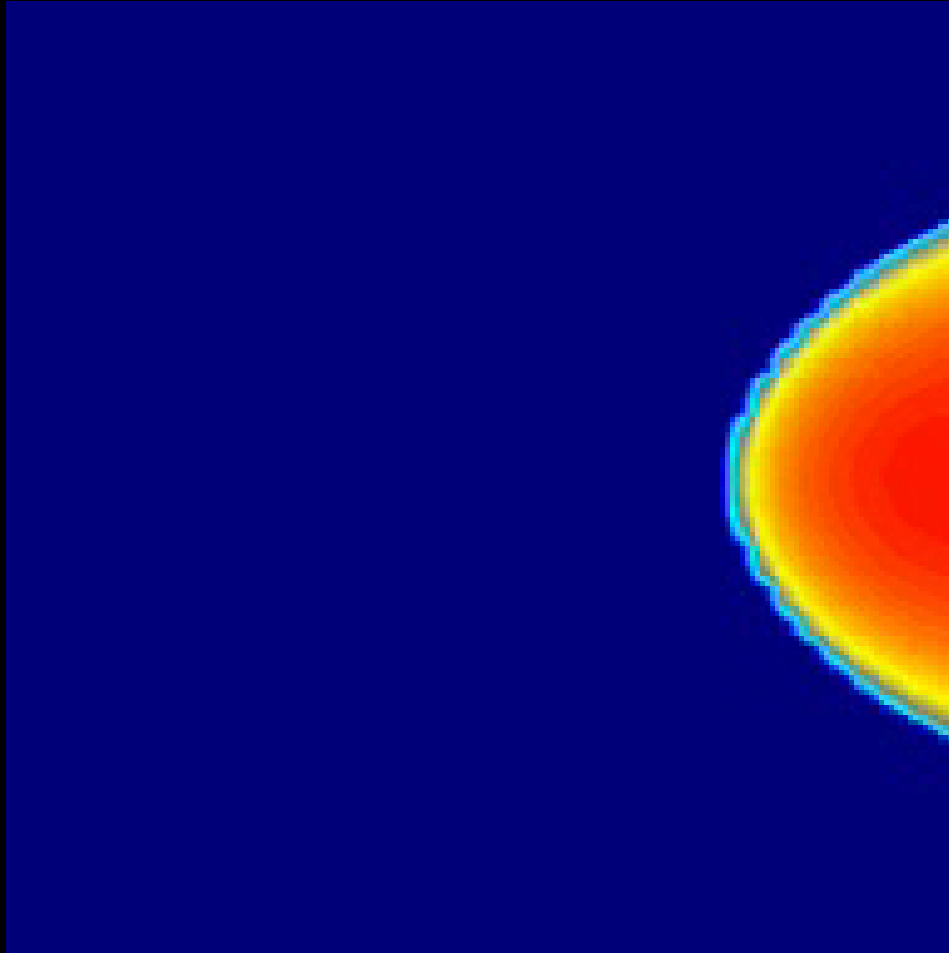
J. Stone's webpage



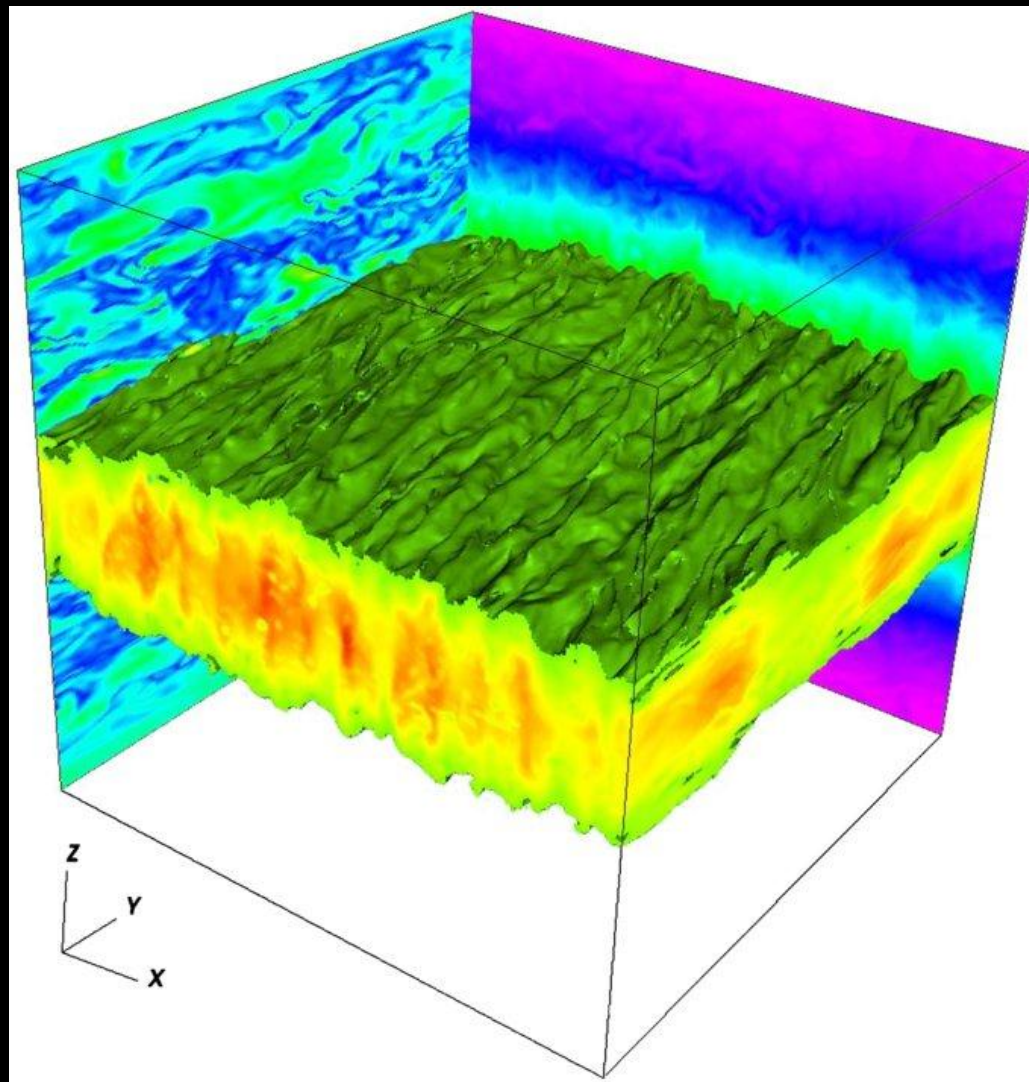
J. Stone's webpage

Density & Magnetic Field Vectors

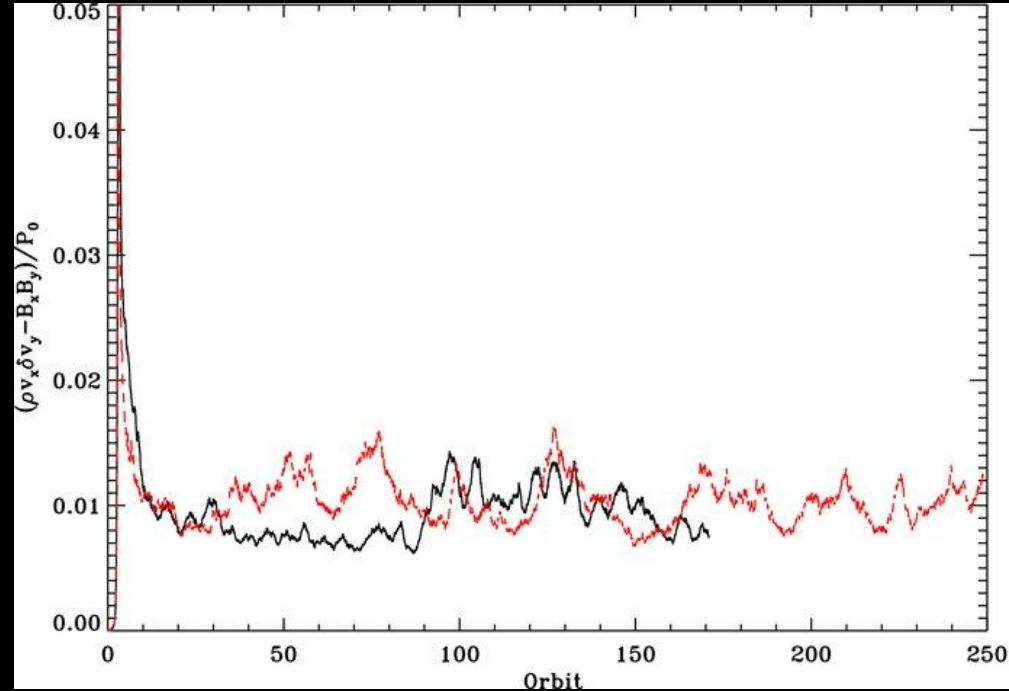
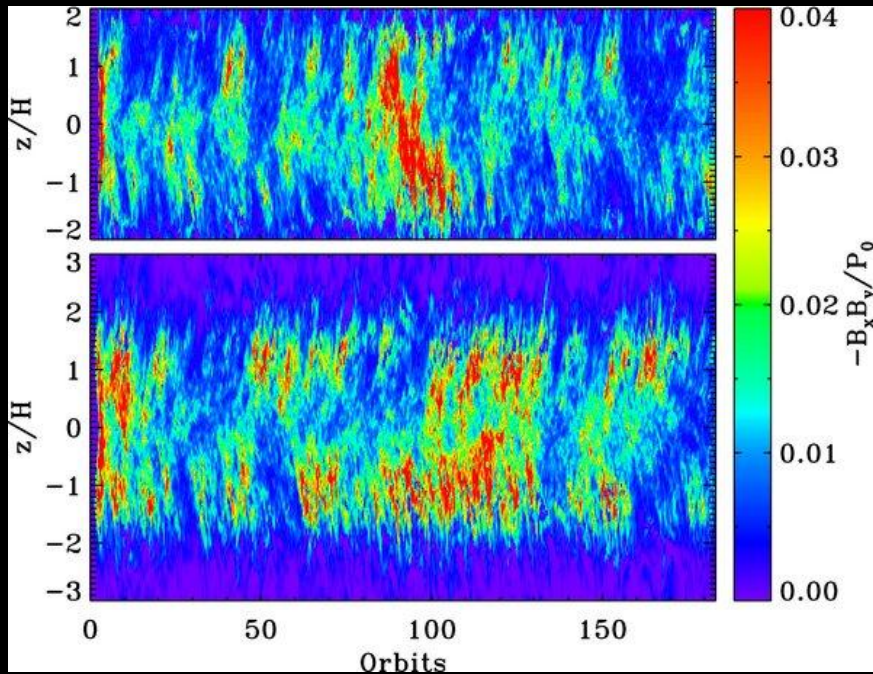
MRI Simulations



Hawley, Balbus & Stone (2001)



- Density isosurface and slices at 250 orbits. B-field at left face (Davis et al. 2010)



- The value of α is extraordinarily space and time dependent (Davis et al. 2010)
- Perhaps only valid in a time and volume-integrated sense.

Caveats

- Even after 2 decades of numerical experiments, no true simulations of thin accretion disks exist
 - Detailed work still in shearing box/local simulations
 - Global simulations are very expensive
 - Radiation is missing in almost all experiments
- Situation is better for RIAFs, but comparison to observations is still in infancy.