

Abstract Submitted
for the DPP09 Meeting of
The American Physical Society

Use of Mirnov Coil Array in Detection of Magneto-Coriolis Waves

KRISTINE GAROT, University of Wisconsin, Madison, ERIK SPENCE, MARK NORBERG, ETHAN SCHATMAN, AUSTIN ROACH, DYLAN COSTER, CYPRIAN CZARNOCKI, HANTAO JI — It is the goal of the Princeton Magnetorotational Instability (MRI) experiment to better understand the process by which angular momentum is transported in accretion disks. The MRI experiment is a liquid gallium Taylor-Couette experiment with independently spinning disks at the ends and an applied axial magnetic field. Under turbulent conditions and a strong enough magnetic field, magneto-Coriolis waves are observed using a 2-D Mirnov coil array and global mode analysis. A new array has been constructed and added to the previous array, and the positions of the new coils have been chosen to increase the mode resolution. Discussion of the observed waves using both the new and old Mirnov coil arrays, along with spectra of the fit modes will be presented.

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Date submitted: 16 Jul 2009

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