

巨大灼熱惑星における磁氣的活動 On the magnetic activities in hot Jupiters

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Recently theoretical studies on thermal evolution of hot jupiters invoked Ohmic dissipation to account for extraordinary large radii of some objects.

Those analyses suggest the existence of significantly strong magnetic fields in hot jupiters.

To test this hypothesis it is important to investigate possible consequence of magnetic fields in gaseous giant planets.

Since gaseous giant planets are supposed to have large convection zones, magnetic field mediates energy transfer from the interior to the exterior of the atmosphere.

In this talk we develop a model of magnetically driven wind from a gaseous planet and investigate the resultant mass loss.

This work may provide a possible consistency check of theories with observations of hot jupiters.

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