APR08-2008-001227

Abstract for an Invited Paper
for the APR08 Meeting of
the American Physical Society

Generating Jets from Young Stars: An Observational Perspective

TOM RAY, Dublin Institute for Advanced Studies

Techniques, such as near-infrared interferometry, spectro-astrometry and high spatial resolution observations, both from the ground (e.g. with adaptive optics) and from space (e.g. from HST), are beginning to reveal conditions in the region where young stellar object jets are generated. Soon these will be augmented by high sensitivity radio observations from instruments such as e-MERLIN and EVLA. Because of their proximity and rich diagnostic line spectra, young stellar object jets are probably the best test-bed for MHD jet launching models. Here I review what high spatial resolutions tell us about jet parameters such as Mach number, plasma β, and angular momentum transport. In turn these can constrain the choice of parameters for realistic laboratory simulations of the generation of jets.