

Tracing Gas in the Inner Disk of CTTSs

Gregory Herczeg¹, Jeff Linsky¹, Brian Wood¹, Jeff Valenti², Fred Walter³,
and Chris Johns-Krull⁴

(Email: gregoryh@colorado.edu)

¹JILA/University of Colorado, Boulder, Colorado

²Space Telescope Science Institute, Baltimore, Maryland

³Department of Physics and Astronomy, State University of New York at Stony Brook,
Stony Brook, New York

⁴Department of Physics and Astronomy, Rice University, Houston, Texas

We analyze molecular hydrogen in ultraviolet spectra of classical T Tauri stars (CTTSs). This emission originates in 2500 K gas in surface layers of the disk, within 3 AU of the star. Most of the FUV emission from CTTSs is in the H I Ly α line, but is typically absorbed in our line of sight to the stars. We use the molecular hydrogen emission to reconstruct the Ly α profile and estimate the flux in this line.

