

## ABSTRACTS OF CONTRIBUTED PAPERS

### BOUNDARY LAYERS AROUND T TAURI STARS

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In the standard model of accretion disks there is a thin transition region between the Keplerian disk and the slowly rotating pre-main sequence star, the boundary layer, which is supposed to be responsible for the UV and optical excess in some T Tauri spectra.

We have modeled the boundary layer, assuming hydrostatic equilibrium in both the vertical and radial directions, and thermal equilibrium between turbulent viscous heating ( $\alpha$  prescription) and radiative cooling. Our input parameters are:  $M_*$ ,  $L_*$ ,  $T_*$ ,  $\alpha$ , and  $M$  we have solved an implicit equation for the temperature, and with this quantity we have computed the size of the region, the density and the optical depth.

With temperature and density, and introducing the inclination angle as a new parameter, we have calculated the boundary layer spectrum and compared our predicted colors  $U - B$ ,  $B - V$  and fluxes around the Balmer Jump, with published observational data from Rydgren et al. (1984, Pub.US Naval Obs., Vol 25, part 1) and Hartigan et al. (1991, ApJ, 82, 617). We take stellar spectra from Bruzual & Charlot (1993, ApJ, 405, 538), and opacities from Calvet et al. (1991, ApJ, 380, 617).

The predicted spectra and colors reproduce the observed features in UV and optical wavelengths.

### ABOUT ONGOING LOW MASS STAR FORMATION IN NGC 6611

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We present preliminary results of a CCD imagery study ( $R/H\alpha$ ) of selected parts of the stellar/nebular complex NGC 6611/M16. Our data show low mass star formation on the bright rims of this region, particularly those associated with the central part of M16 known as the "Queen Star".

### ROSAT X-RAY SOURCES IN ORION STAR FORMING REGION

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In the course of a systematic study of *ROSAT* X-ray sources in star forming regions (SFR) we have started spectroscopic observations in order to identify the optical counterparts of the *ROSAT* X-ray sources. The main purpose of this study is the search for weak line T Tauri stars (WTTS). WTTS are low-mass PMS stars which are found in SFR and which display the Li I  $\lambda 6707$  absorption line (which verify their PMS nature), but lack both strong  $H\alpha$  emission and strong IR excesses characteristic of classical T Tauri stars (CTTS). WTTS are believed to be PMS stars which lack dense surrounding matter, and therefore to be more easily detected by their strong solar-like coro-

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