

POSTER CONTRIBUTIONS (ABSTRACTS)

HIGH RESOLUTION ULTRAVIOLET AND OPTICAL OBSERVATIONS OF T TAURI STARS

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I will present high resolution, absolute flux calibrated spectra of the cores of the Mg II h and k lines in several T Tauri stars, as obtained with the IUE echelle spectrograph. In addition, I will present high resolution (uncalibrated) profiles of the Ca II K line for the same sample of stars, as obtained with the Mt. Hopkins Observatory echelle spectrograph and 60" telescope. The basic features of these profiles will be compared and discussed, particularly with regard to any relationship that may exist between their appearance and the observed far UV emission line fluxes and X-ray luminosities of these stars.

THE LOW MASS POST-T TAURI STARS

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We report on optical and ultraviolet spectra of a sample of X-ray selected late type stars located in regions of active star formation and which exhibit weak chromospheric emission. Six are K7 IV-V stars in Taurus-Auriga with weak H α emission and strong Ca II or Mg II emission. One is a double-lines spectroscopic binary with a 3.9 orbital period. Five additional stars, in Ophiuchus and Taurus, are late G dwarfs without noticeable emission above the continuum, but with strong chromospheric emission.

We discuss photometric and spectrophotometric observations of these stars. We find that they are of comparable age to the T Tauri stars, despite appearing to be far more evolved. We speculate on the implications of these observations on pre-main sequence evolution. We compare the chromospheric emission fluxes to those of the T Tauri and ZAMS stars. We conclude that these "post-T Tauri" stars may differ from the T Tauri stars primarily through the absence of a large circumstellar envelope.