

RECENT OBSERVATIONS OF THE HIGHLY VARIABLE STAR DR TAU

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Abstract

Simultaneous spectroscopic and photometric observation of the T Tau-like star DR Tau are reported. The spectrograms show a rich emission spectrum. The Balmer lines are strongly variable. They sometimes show a highly complex structure, and inverse P Cygni profiles were observed on two nights. The metallic lines are essentially undisturbed. Simultaneous photometry indicates irregular variations of the blue continuum by as much as 0.5 magnitude on a time-scale of one day and variations of more than two magnitudes on a time-scale of a few days. The observed spectral properties can be explained by assuming that DR Tauri is a protostar of about $1 M_{\odot}$ which has not yet reached its hydrostatic equilibrium Hayashi track. A more complete description of our results is in press in *Astronomy and Astrophysics*.