Spectrum of the T Tauri star BP Tauri

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BP Tau has recently been the subject of an AAVSO observing campaign in support of Dr Moritz Guenther of the Harvard-Smithsonian Center for Astrophysics who was observing the star with the Chandra X-ray satellite. More information about the campaign is available on the VSS website at http://www.britastro.org/vss/BP_Tau_Campaign_2013_14.htm.

BP Tau is a classical T Tauri star, a young pre-main-sequence star surrounded by a thick accretion disk which is depositing matter onto the surface of the star. The surrounding hydrogen-rich environment is being ionised by radiation from the star and this produces strong hydrogen emission lines in the stellar spectrum.

I took this spectrum on 2013 Dec 28.866 UT with a LISA spectrograph attached to a C11 scope. Total integration time was 75 min. The main emission lines of the hydrogen Balmer series are prominent plus a weak emission line of helium at 5876A. The grey spectrum is an amplified version of the black one. The star was approximately 12th magnitude at the time.



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