Rotationally Modulated X-ray Emission

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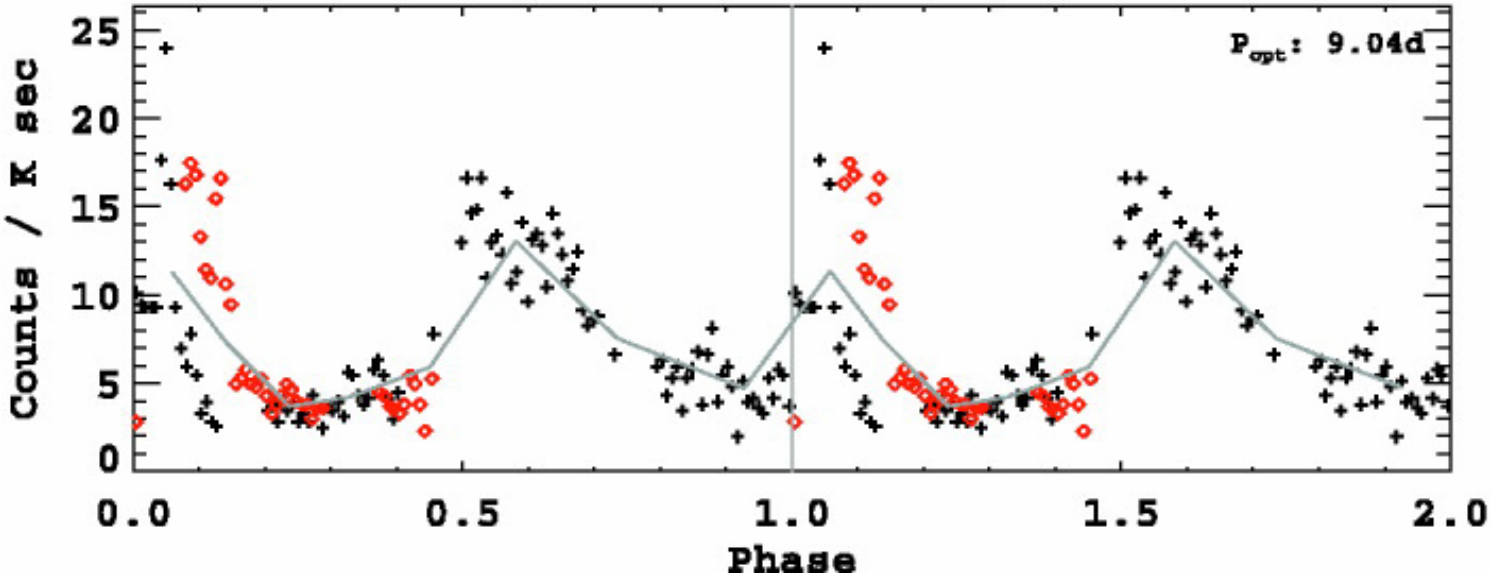
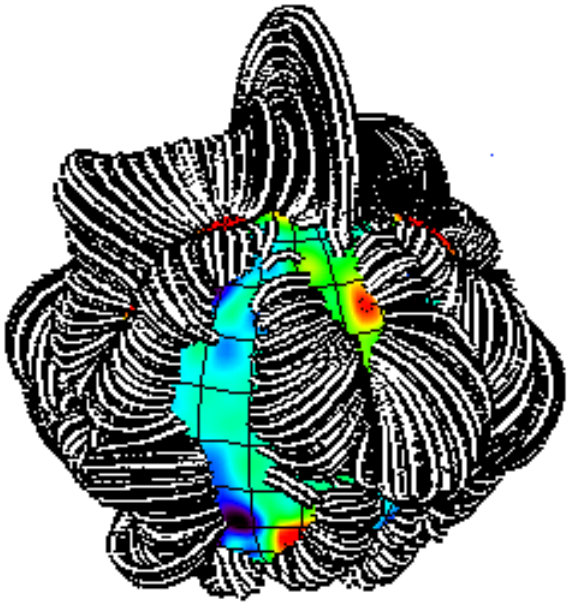


(Flaccomio et al 2005)

- Detection of rotationally modulated of X-ray emission implies that T Tauri stars have compact coronae.

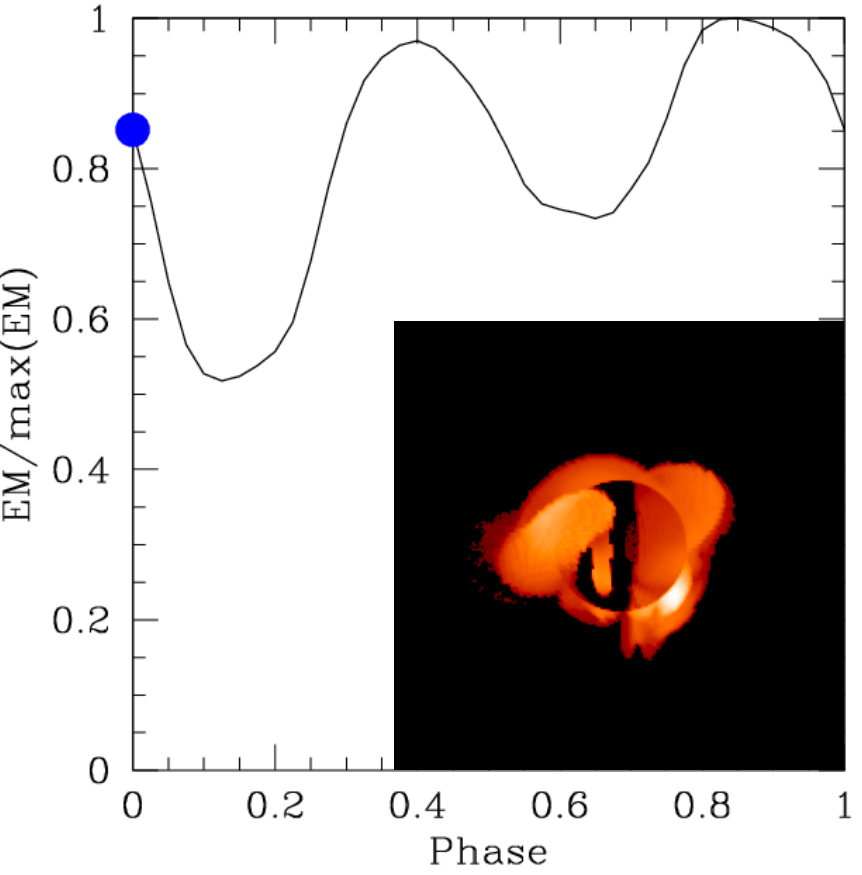
Potential Field Extrapolations



(Donati et al 2001; Jardine et al 2006; Gregory et al 2006a,b)

- LQ Hya/AB Dor surface maps.
- Potential field extrapolation.
- Isothermal corona in hydrostatic equilibrium.
- Satisfies observational constraints.

Rotational Modulation of X-ray Emission

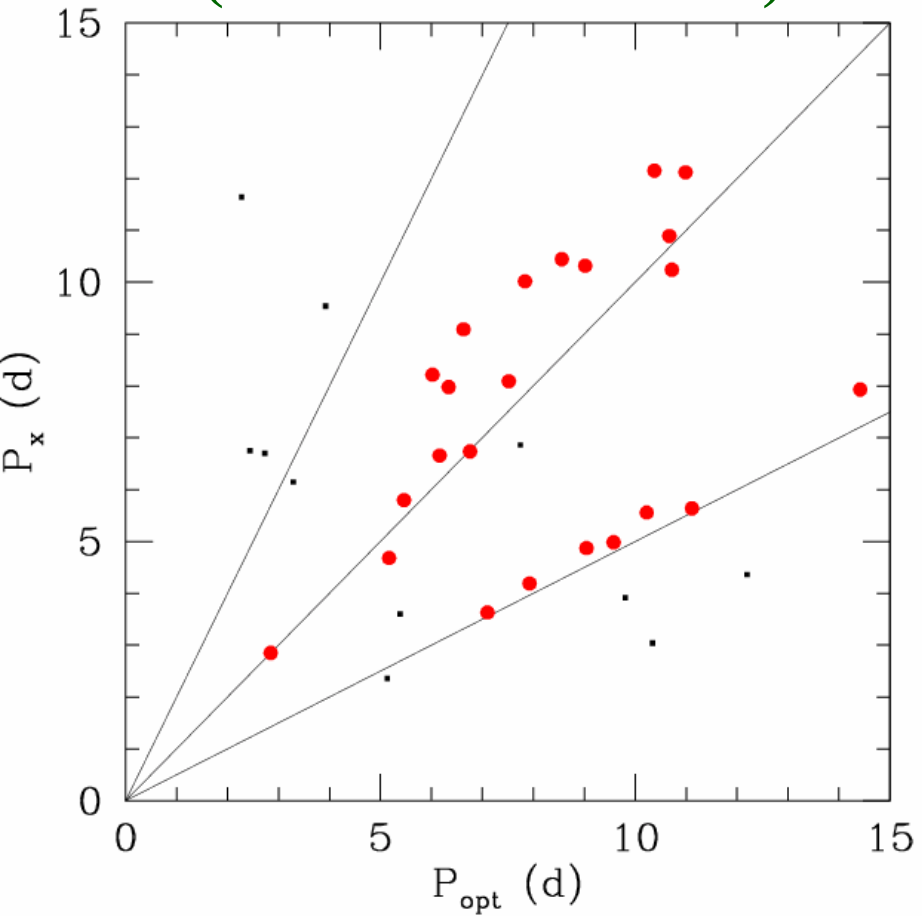


(Gregory et al 2006b)

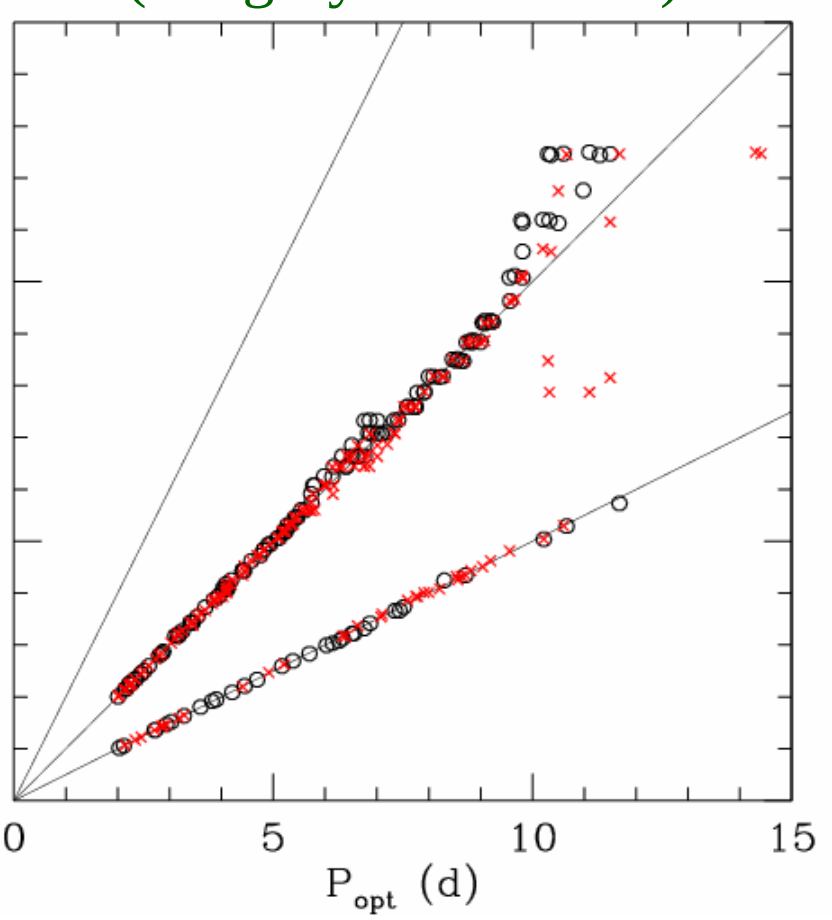
- Modulation amplitudes of up to ~ 60%.
- X-ray periods calculated using Lomb Normalised Periodogram method for comparison with Flaccomio et al 2005.

X-ray and Optical Periods

(Flaccomio et al 2005)



(Gregory et al 2006b)



- Model coronae yield X-ray periods of $P_X=[0.5,1]P_{opt}$ – in agreement with observations.