

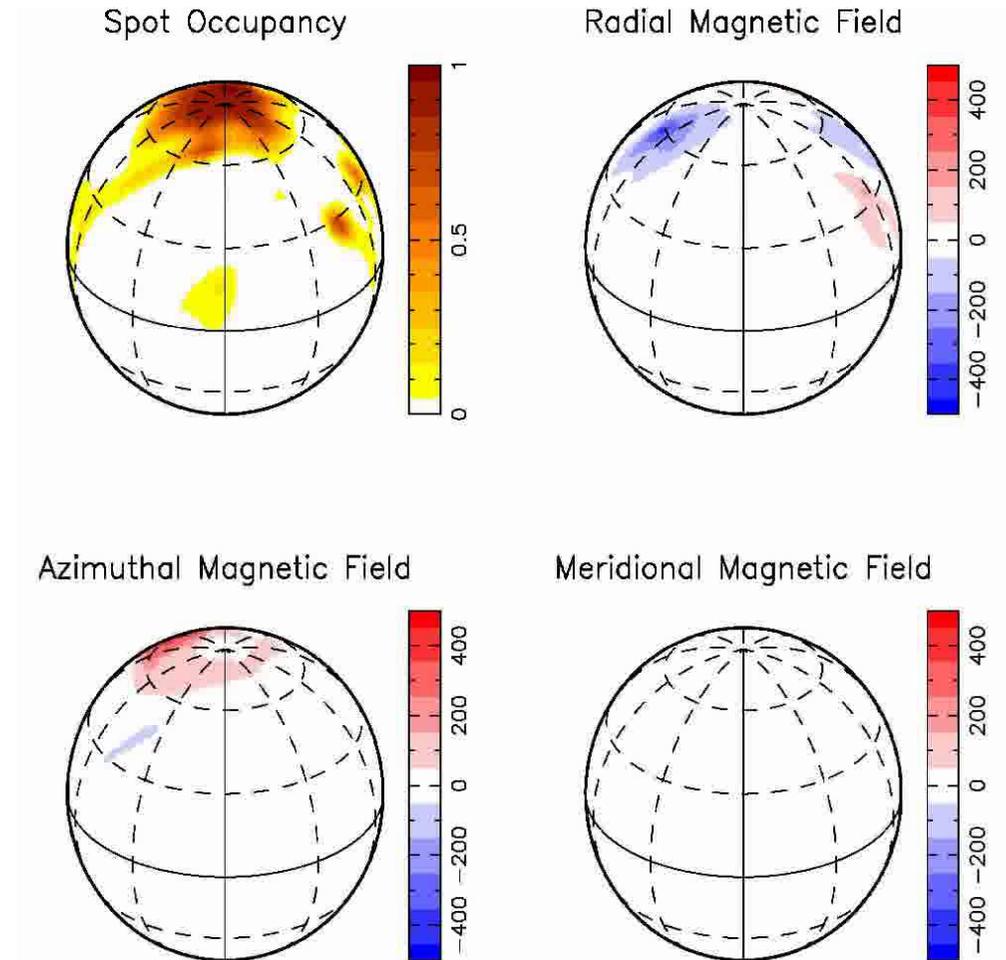
# The photospheric magnetic field and coronal structure of HD 171488

## POSTER # P12

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# The photospheric magnetic field

- Spectropolarimetric observations of HD 171488 were obtained at the Anglo-Australian Telescope in circularly polarised light.
- The technique of Zeeman Doppler imaging (Donati et al. 1997, MNRAS, 291, 658) was used to reconstruct the surface brightness and magnetic features.

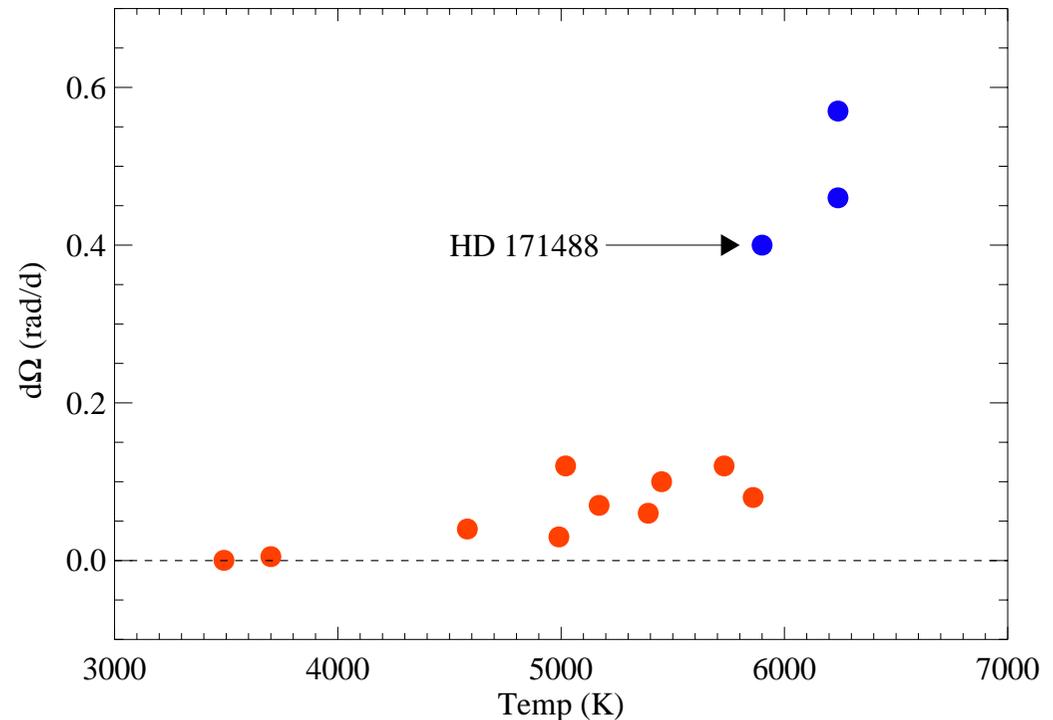


(Marsden et al. 2006, MNRAS, 370, 468)

# Surface differential rotation

- By incorporating a solar-like differential rotation law into the imaging process we were able to determine the surface differential rotation from the evolution of the surface spot features.

- HD 171488 has a surface shear  $\sim 7$  times the solar value with the equator lapping the poles every  $\sim 16 \pm 2$  days.



(Orange points from Barnes et al. 2005, MNRAS, 357, L1.

Blue points are new data)

# Coronal structure

•Using the coronal X-ray modelling technique of Jardine et al. (2002, MNRAS, 336, 1364) we have been able to reconstruct the coronal structure of HD 171488 from the radial magnetic field image.

•HD 171488 should have rotationally modulated X-ray emission.

