

*Workshop*

## **Imaging of Stellar Surfaces**

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### **Title:**

Doppler Imaging and Chemical Abundance Analysis of EK Dra:  
Capabilities of Small Telescopes

### **Abstract:**

We investigate the chromospheric and spot activity behaviour of the young Solar-like star EK Dra via Doppler imaging and spectral synthesis methods, using mid-resolution time series spectra of the system. We also present the atmospheric parameters and detailed elemental photospheric abundances of the star. The chemical abundance pattern of EK Dra do not suggest any remarkable peculiarities except few elements. The Titanium Oxide (TiO) bandheads at 7000 - 7100 Å region also give clues about the spot temperature that may be cooler than 4000 K. In addition, we also discuss the capabilities of small telescopes (40 cm in our case) and medium resolution spectrographs in terms of Doppler imaging and chemical abundance analysis.