

V 1878 Ori

Observations and first results

Alexis Lavail, Gaitee Hussain, Oleg Kochukhov Evelyne Alecian, Julien Morin,
Ágnes Kóspál, Costanza Argiroffi, Brian Skiff, Lisa Prato +more?

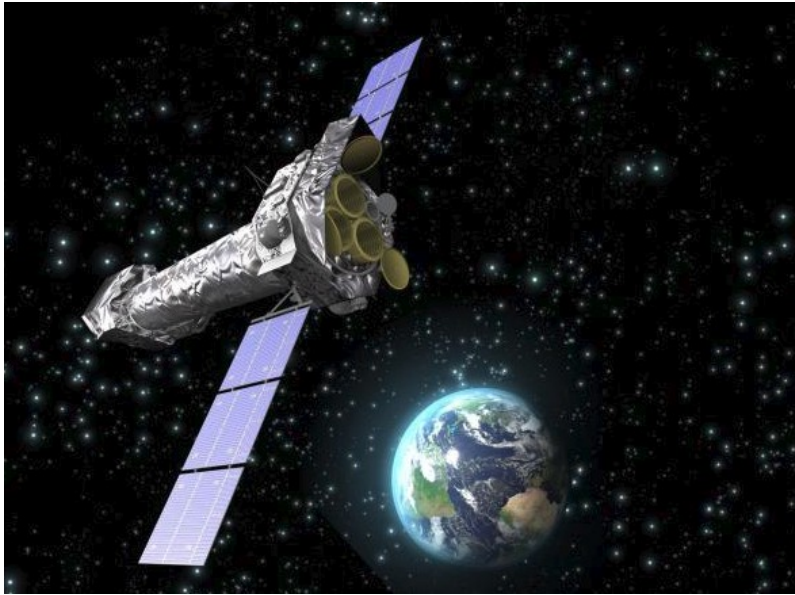
Binamics meeting - 2016-03-19 // Vienna

V1878 Ori

Why the interest?

- Two K2-3 T Tauri stars
- Similar mass and luminosity
- Both are magnetic
- eccentric system ($e = 0.32$)
- Rotation periods of 13 days
- System period of ~ 40.6 days

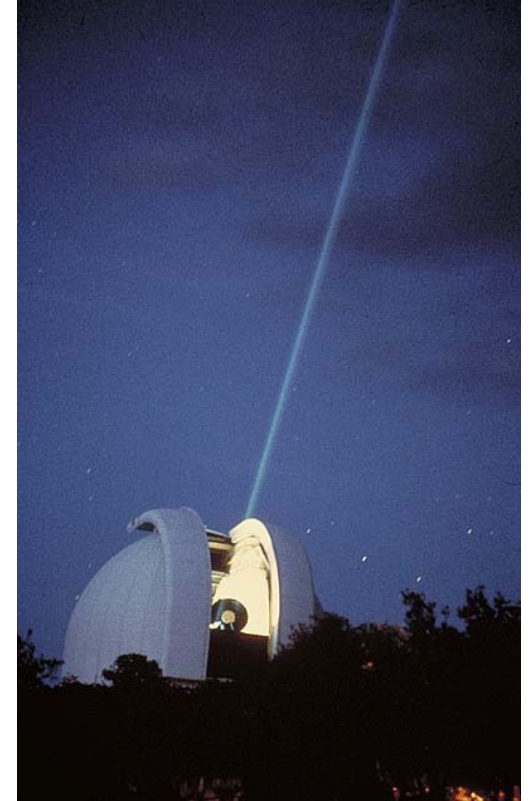
Multi-wavelength campaign



XMM-Newton | X-ray



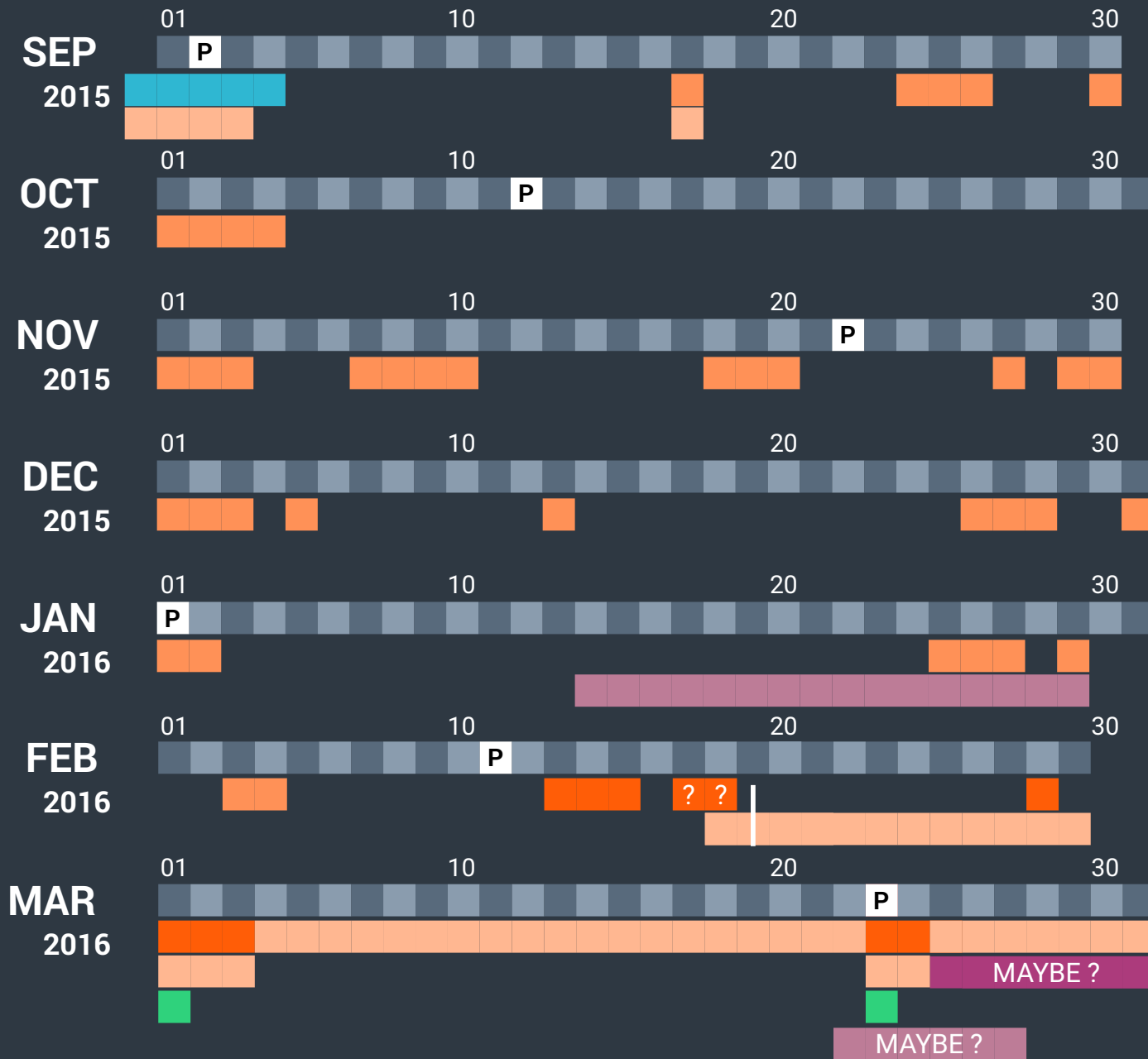
100 m Effelsberg | Radio



IGRINS @2.8m McDonald
near-IR spectra



Espadons @3.6m CFHT | Optical spectropol



Hungarian 0.9 m

Lowell 0.7 m

Robotic telescope



ESPaDOnS @CFHT

IGRINS @McDonald



XMM-Newton



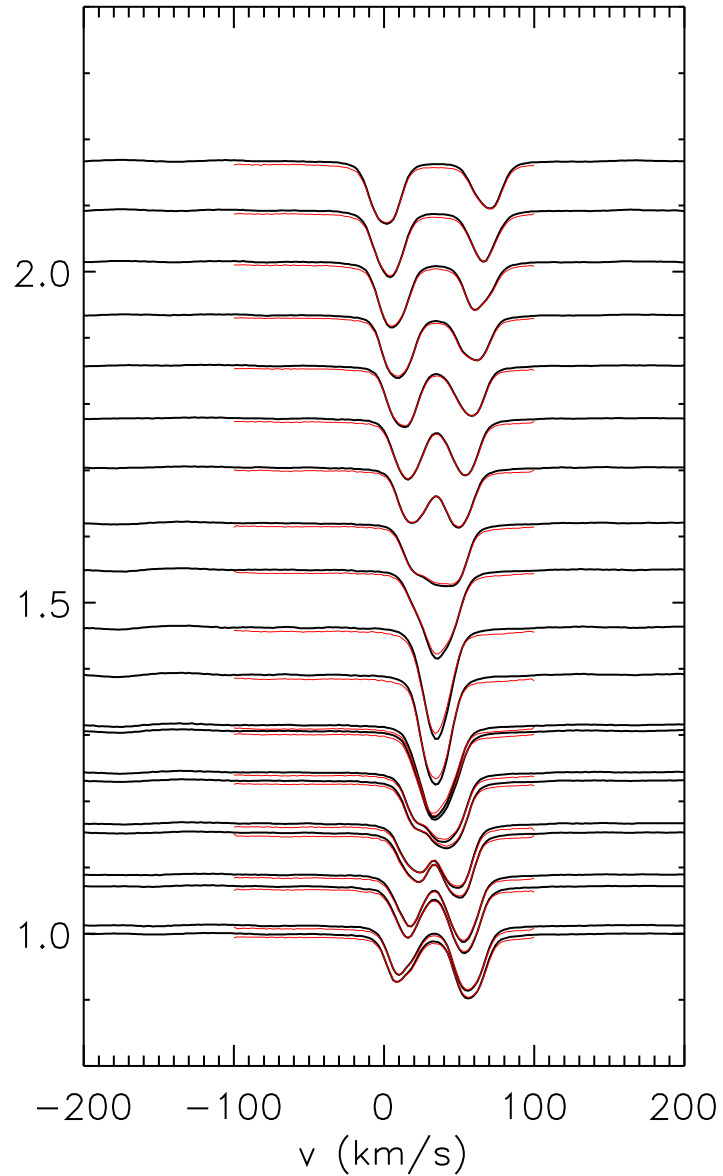
Effelsberg 100 m

MAYBE ?

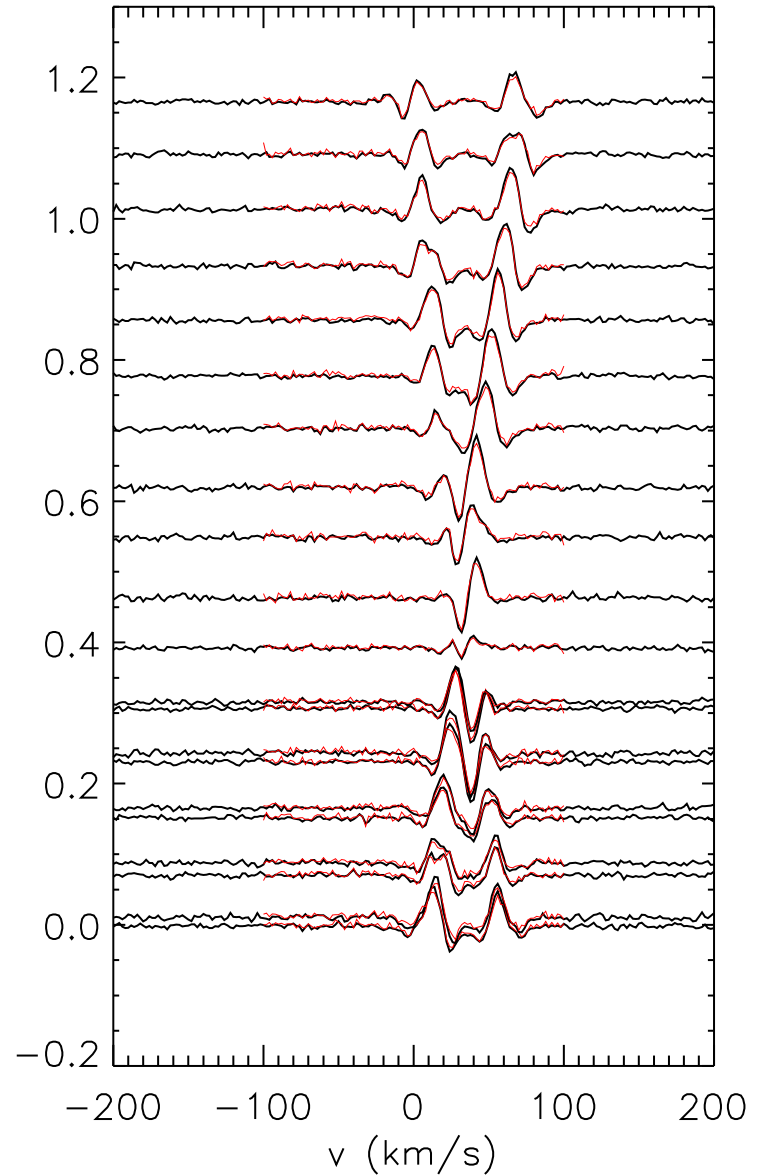
MAYBE ?

Spectropolarimetry from Espadons

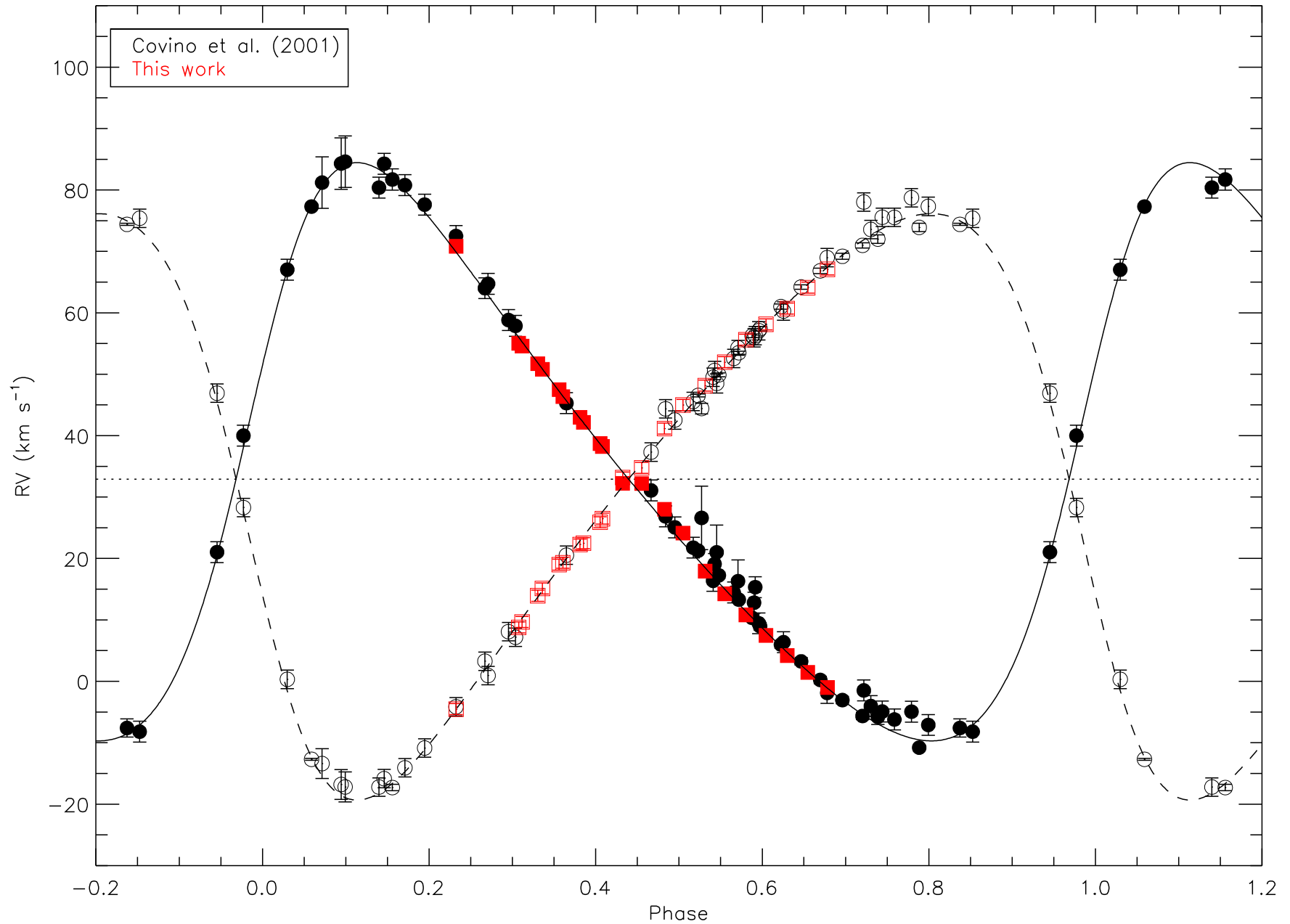
Shifted V1878 Ori LSD I



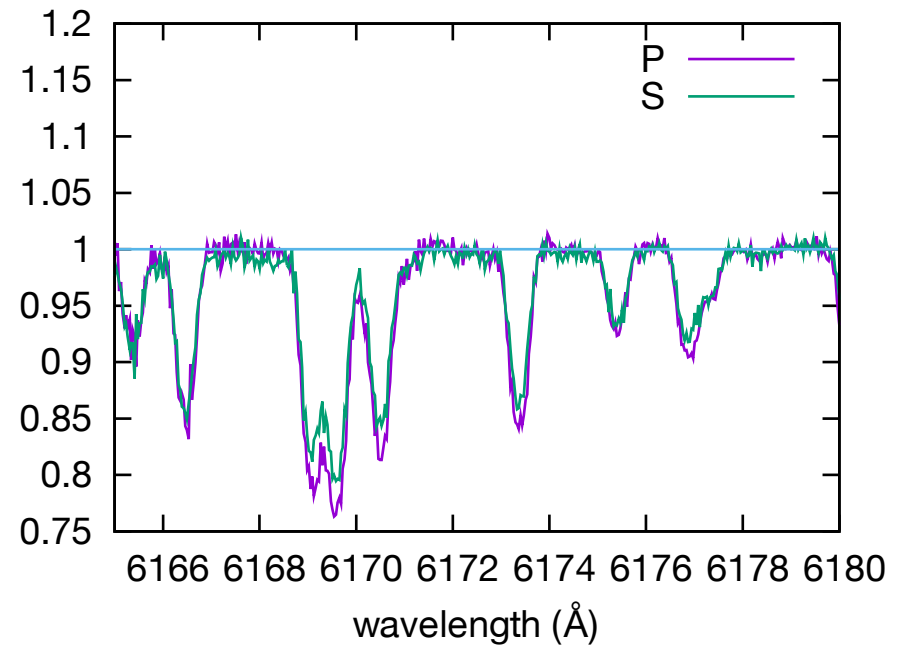
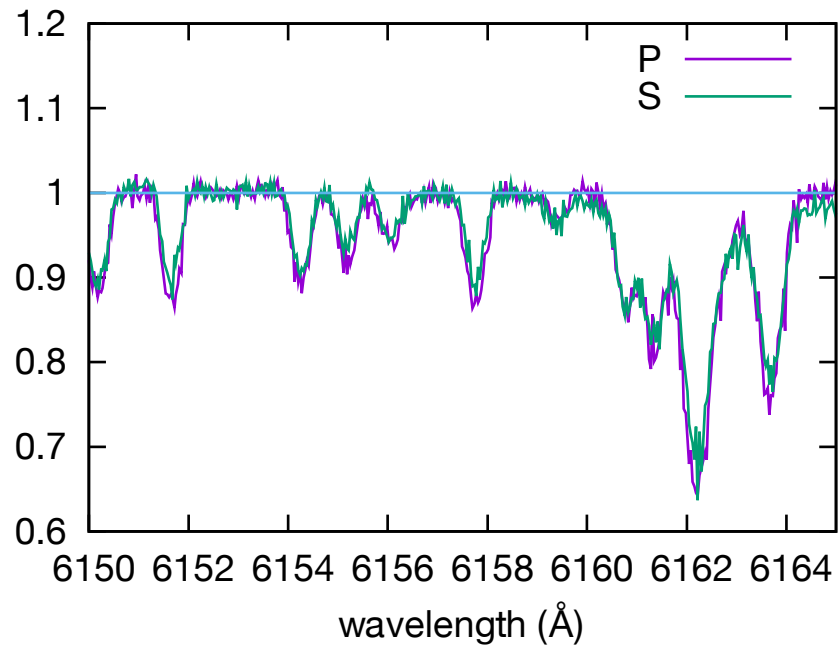
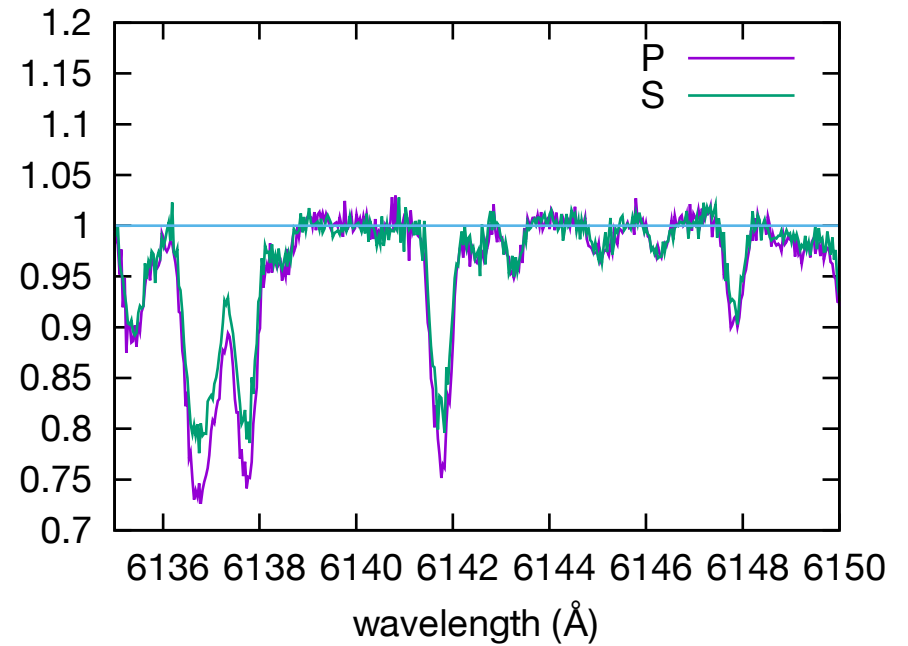
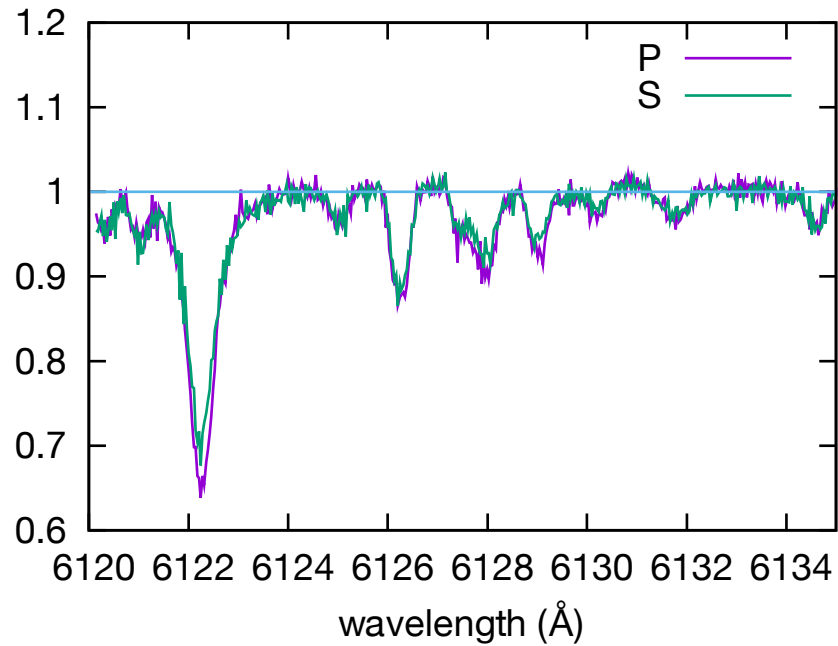
Shifted V1878 Ori LSD V x 25



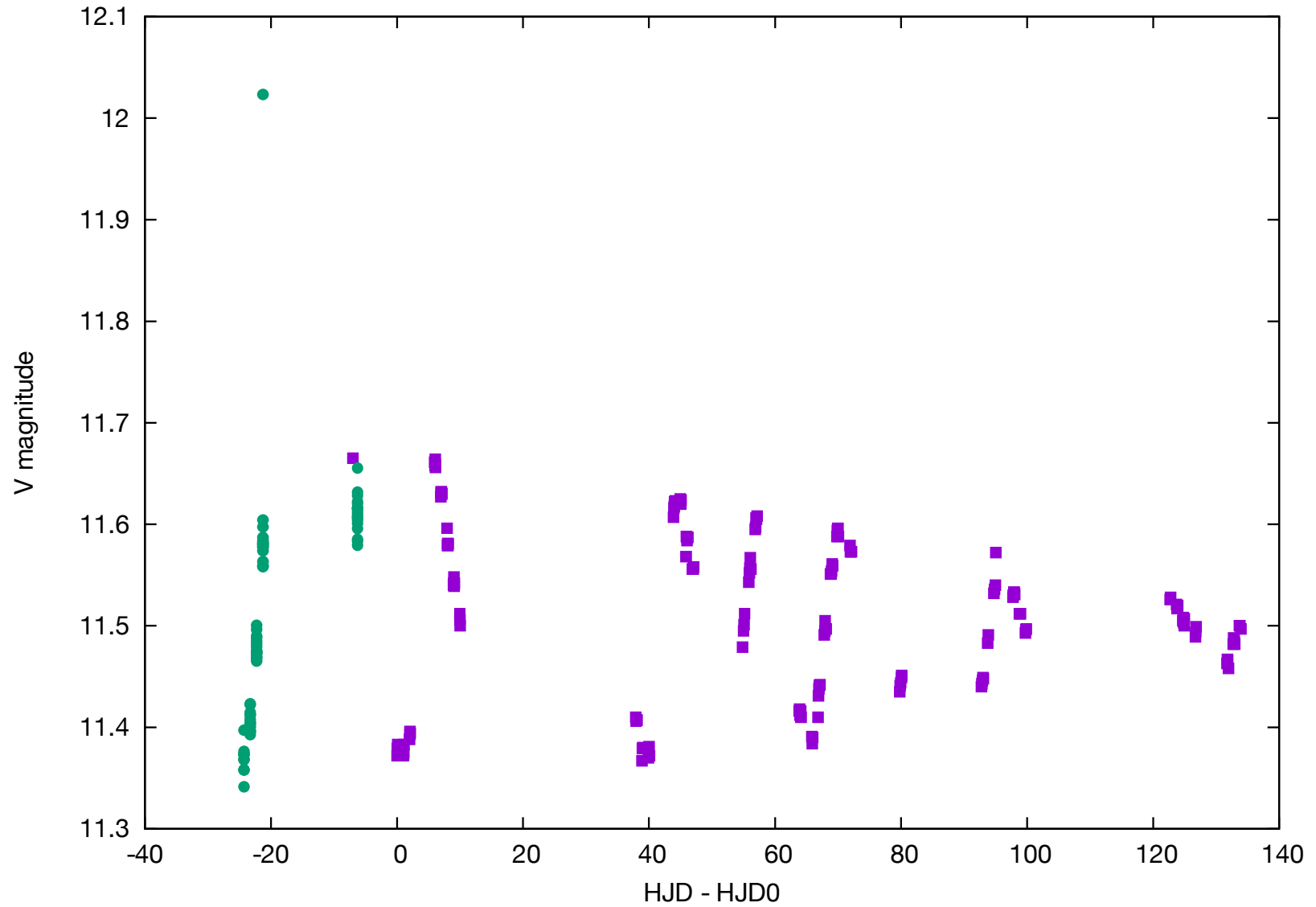
Refinement of the orbital solution



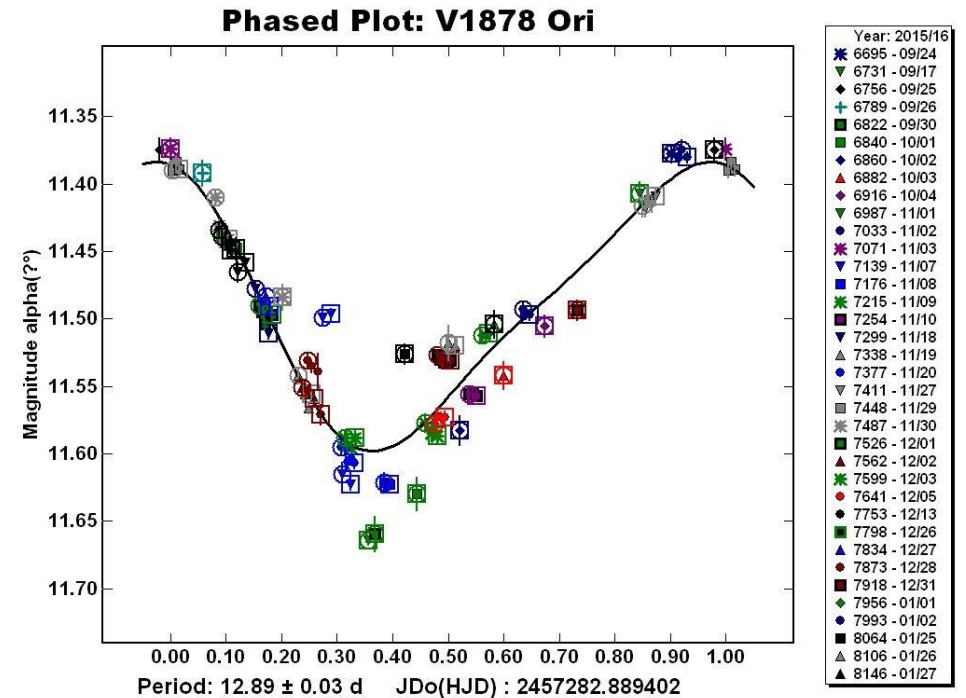
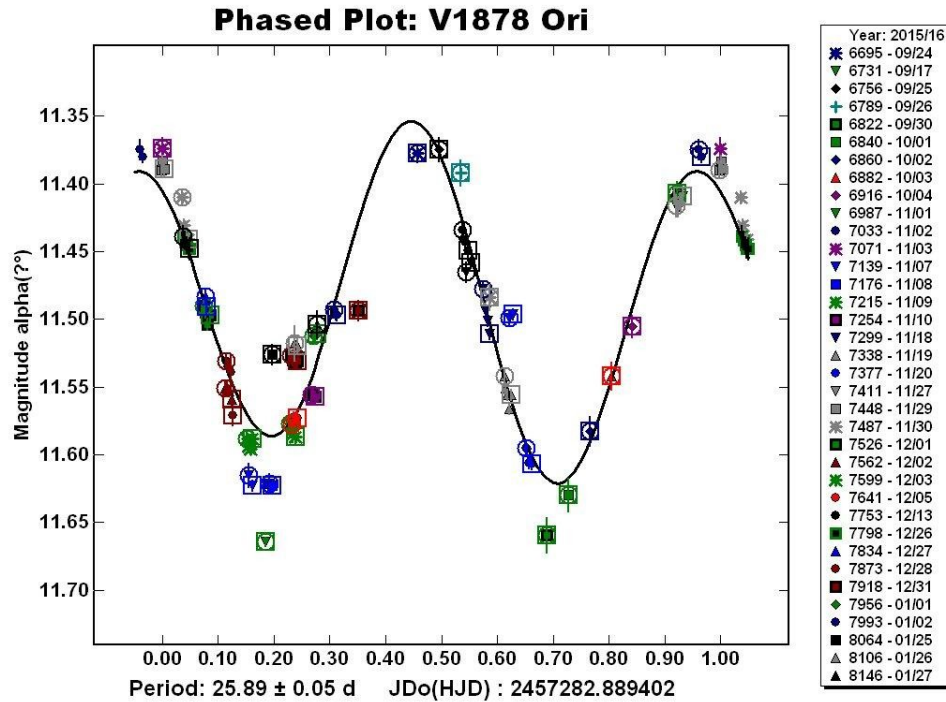
Disentangling



Photometry

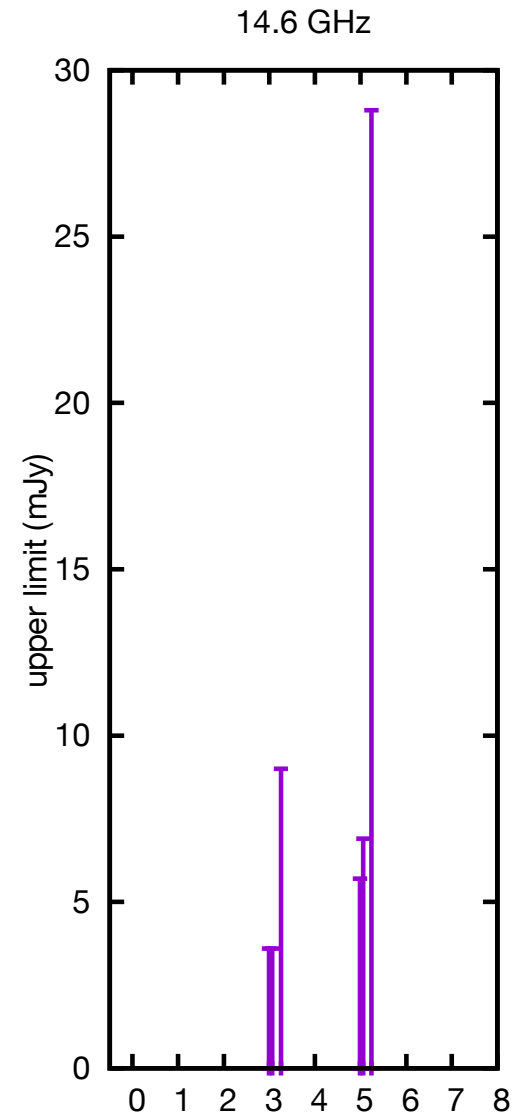
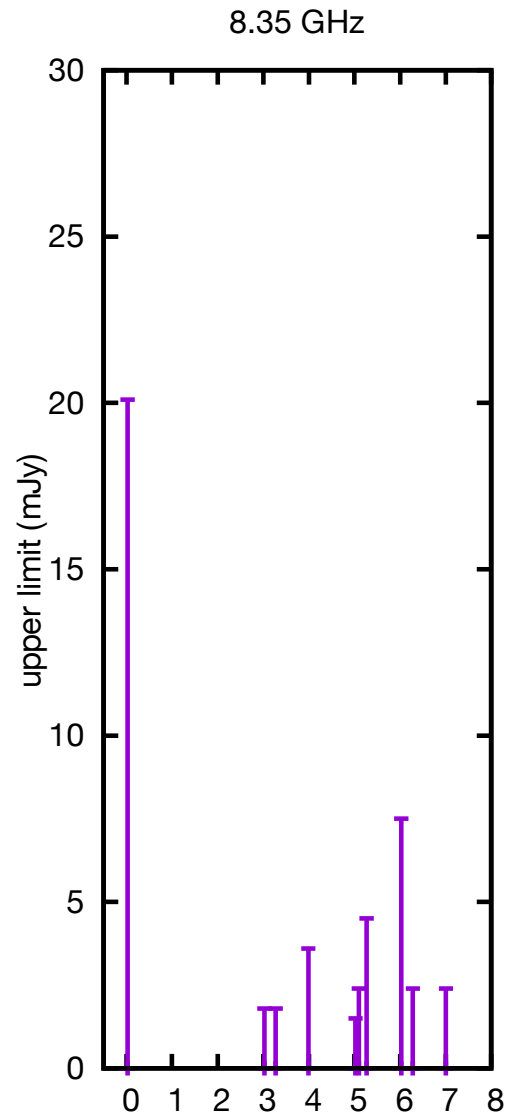
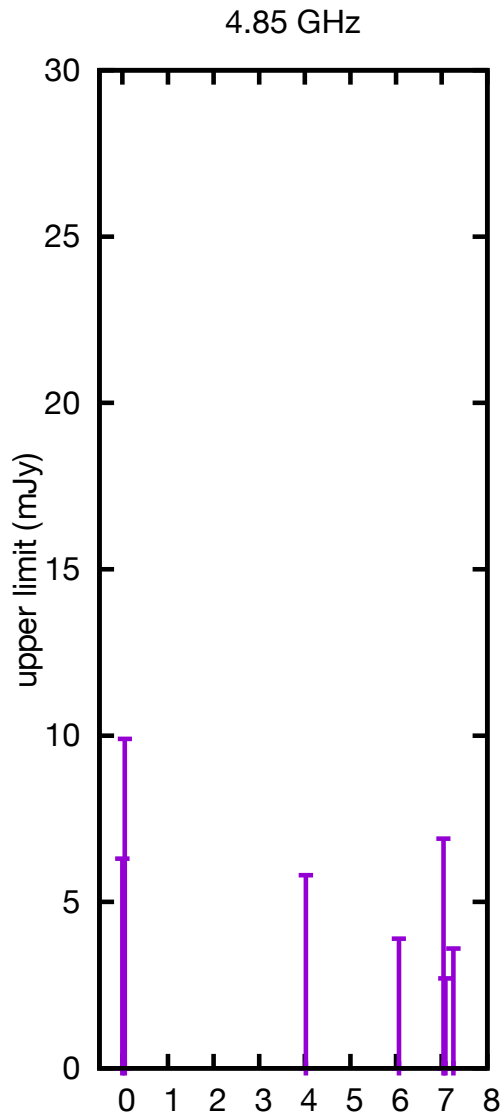


Photometry from Lowell Observatory



Radio observations at periastron

Reminder: $1 \text{ mJy} = 10^{-29} \text{ W m}^{-2} \text{ Hz}^{-1}$



Now that we have the data, who's doing what ?

THANKS!