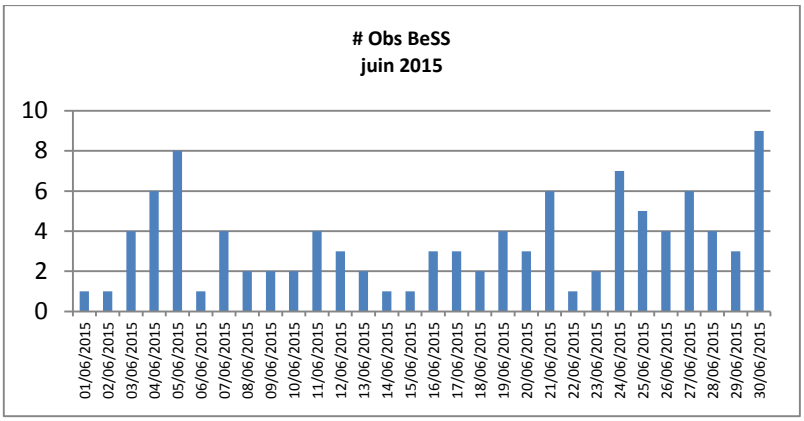
BeSS report – June 2015

Data compiled by Valérie Desnoux
Be projects section by Ernst Pollmann [here]

Observateur	Nb spec
Pollmann	15
de Bruin	15
GARDE	13
Guarro Fló	12
MONTIER	10
Sawicki	10
Lemoult	5
HOUPERT	4
Favaro	4
Fosanelli	4
Bohlsen	4
DUBREUIL	3
Martineau	2
TERRY	1
MontigianiMannucci	1
Graham	1

- 104 H-alpha spectra acquired
- 59 objects observed
- 16 observers contributed

The most observed objects were Gam Cas, del Sco, V2136 Cyg

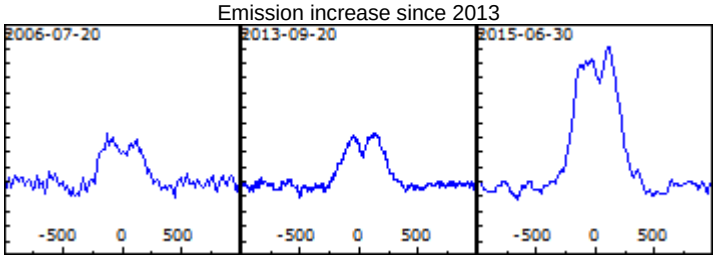


Objects observed

Classique							?	Herbig
gam Cas	SHELIAK	V923 Aql	HD 147196	HD 162428	V457 Sct	QT Ser	51 Oph	V1026 Sco
V442 And	HL Lib	HD 114200	HD 112028	CX Dra	HD 170009	V2136 Cyg	HD 174571	V718 Sco
tet CrB	66 Oph	V1040 Sco	V1437 Aql	HD 171780	HD 169033	omi And		
zet Crv	chi Oph	NW Ser	HD 174886	V2148 Cyg	V447 Sct	12 Vul		
kap Dra	48 Lib	lam Cyg	HD 173530	V495 Cen	HD 174571	V1294 Aql		
phi Leo	V532 Lyr	EW Lac	8 Lac A	DO Cru	HD 161306	25 Cyg		
del Sco	53 Boo	pi Aqr	V484 Car	V2113 Cyg	HD 344313	HD 181409		
QR Vul	zet Oph	HD 173817	HD 181231	HD 179343	HD 173371			

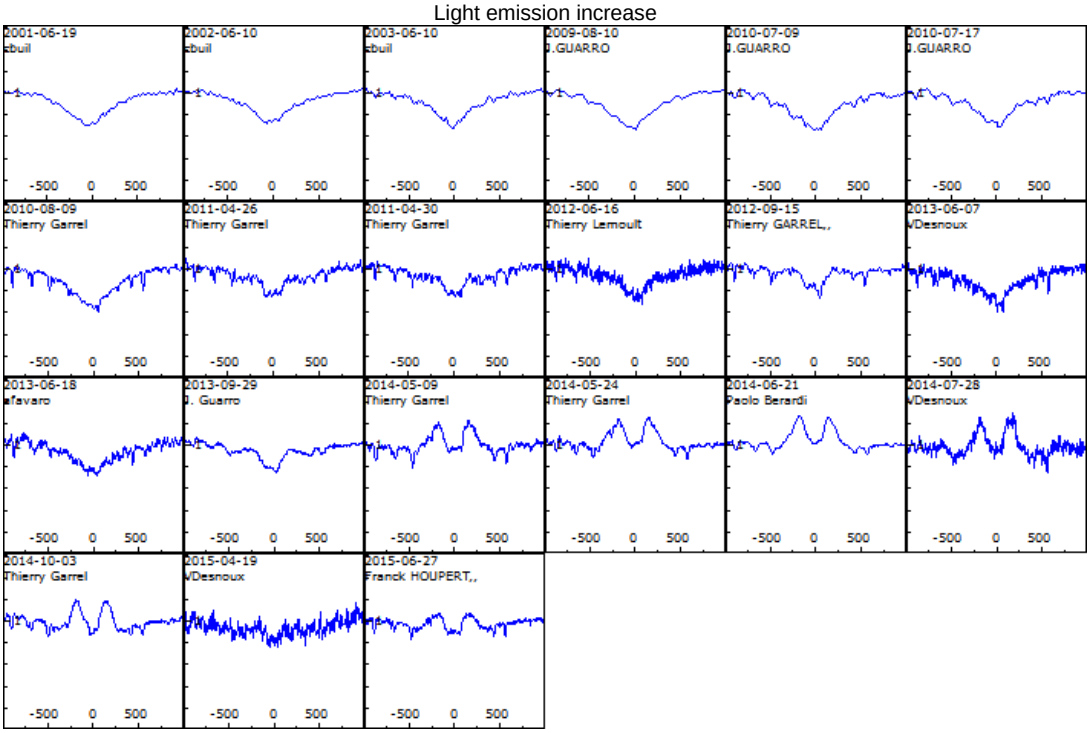
Emission increase since last observations

V1437 Aql
Emission increase since 2013



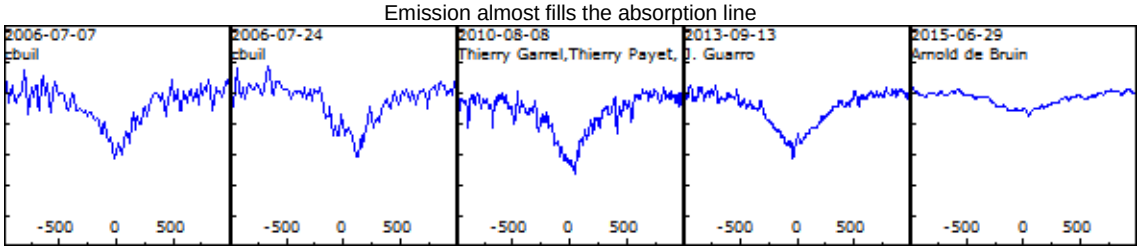
V532 Lyr

Light emission increase



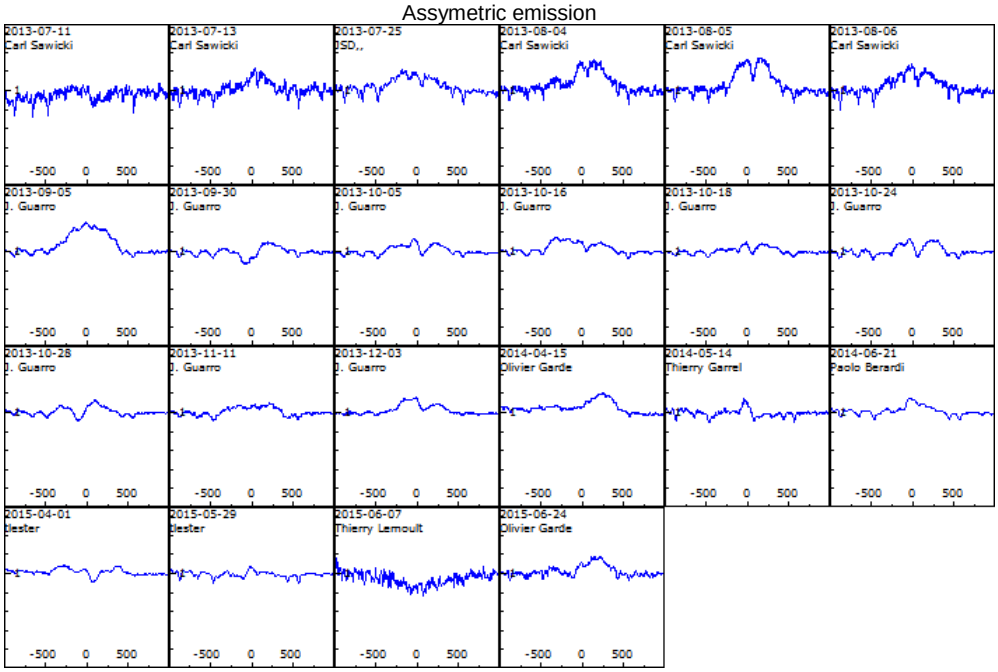
HD 173530

Emission almost fills the absorption line



CX Dra

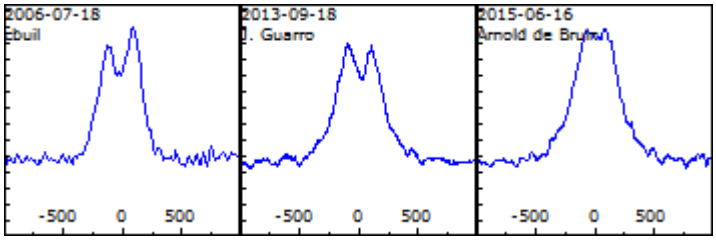
Assymetric emission



Moderate evolutions of H-alpha line

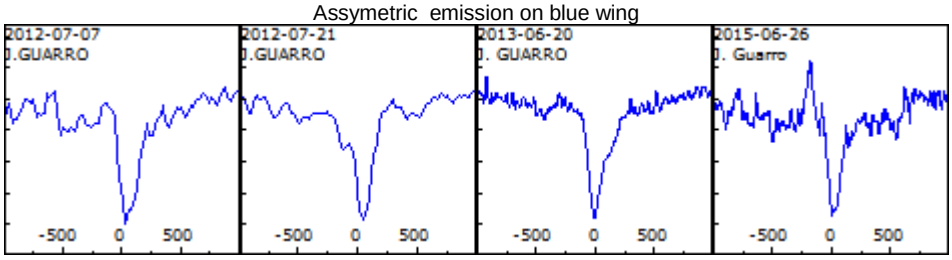
V457 Sct

V/R variations



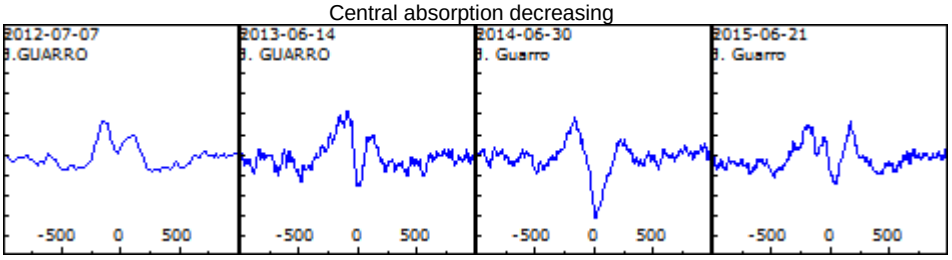
V718 Sco

Assymetric emission on blue wing



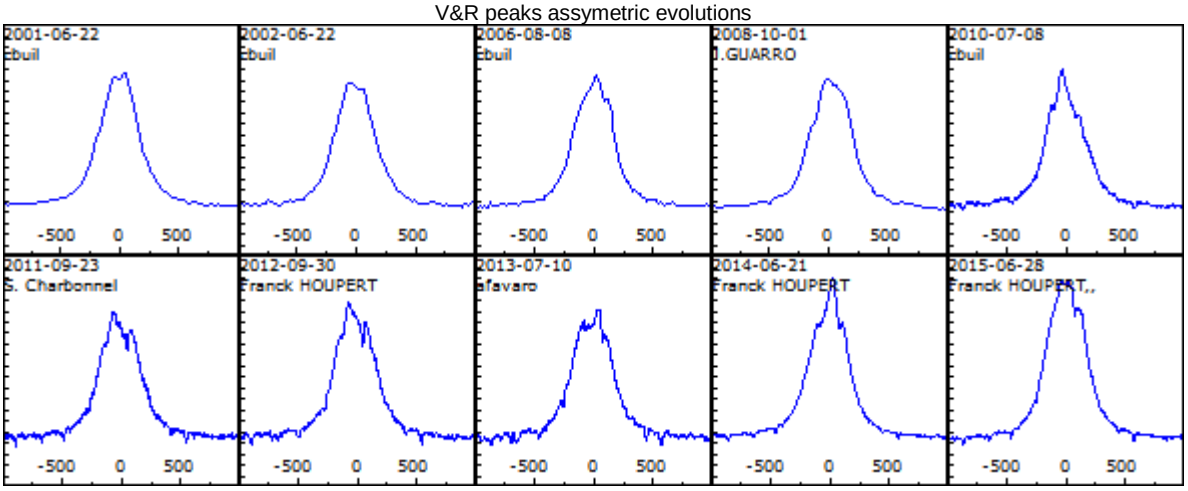
V1026 Sco

Central absorption decreasing



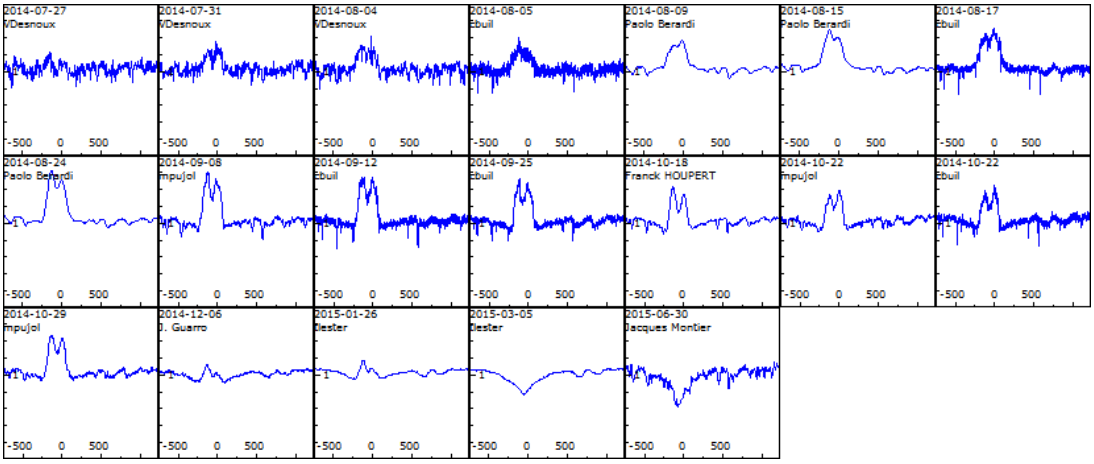
V2113 cyg

V&R peaks assymetric evolutions



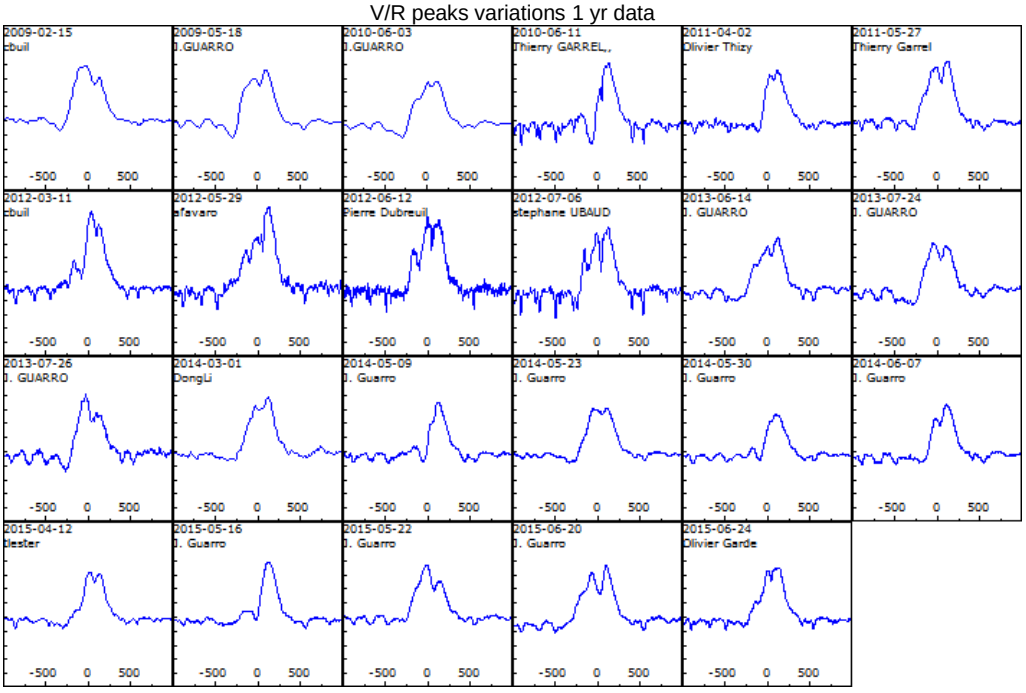
V442 And

Assymetric profile



HL Lib

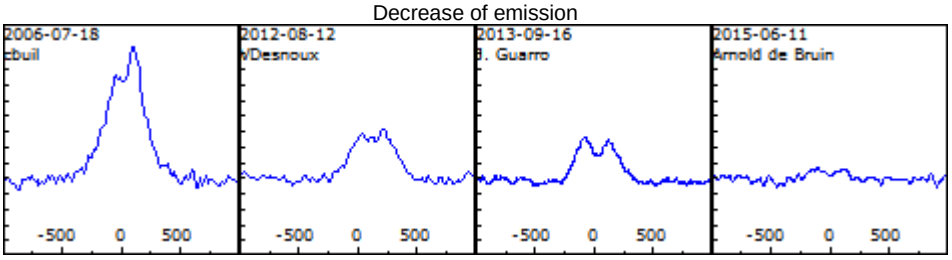
V/R peaks variations 1 yr data



Emission decrease of H-alpha line

HD174571

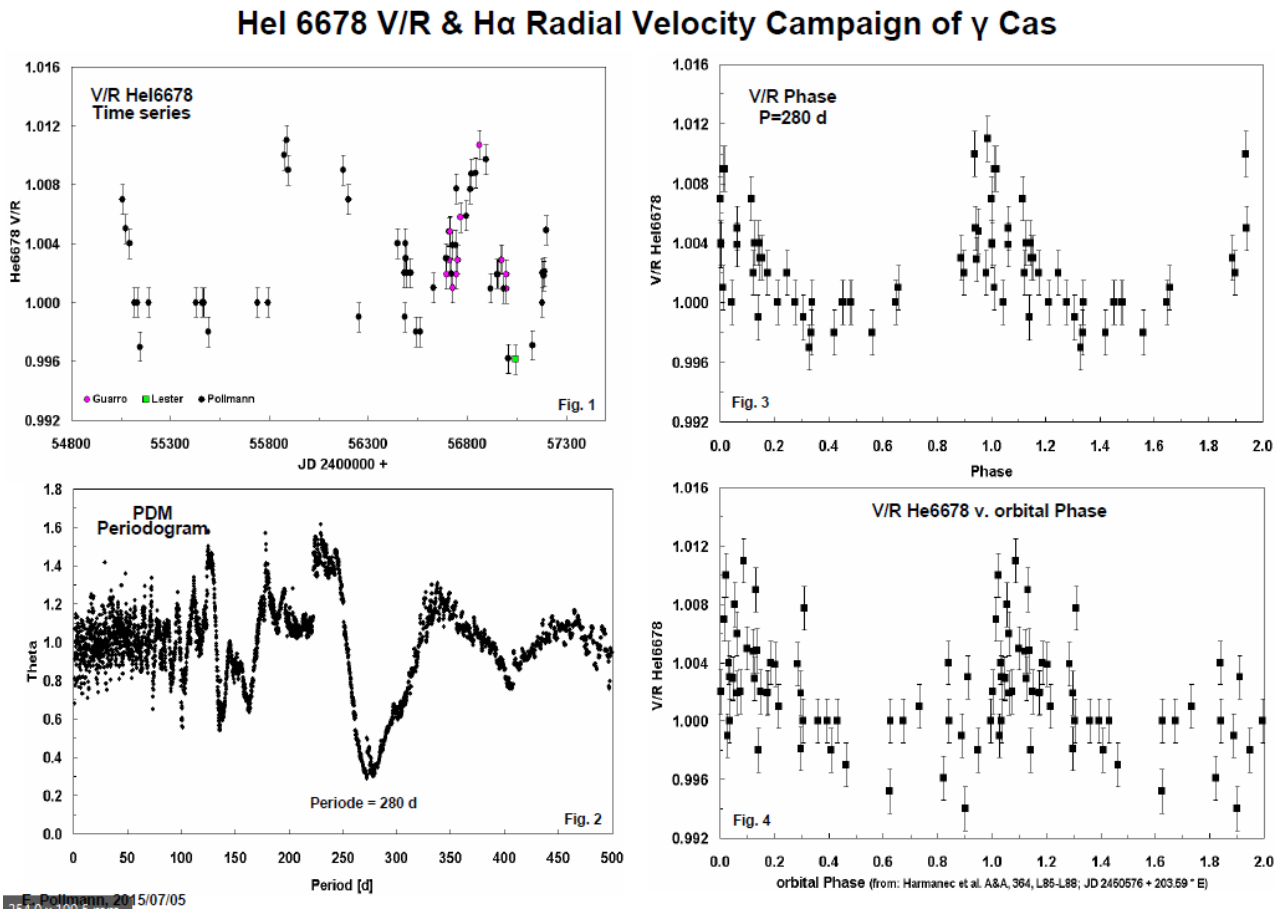
Decrease of emission

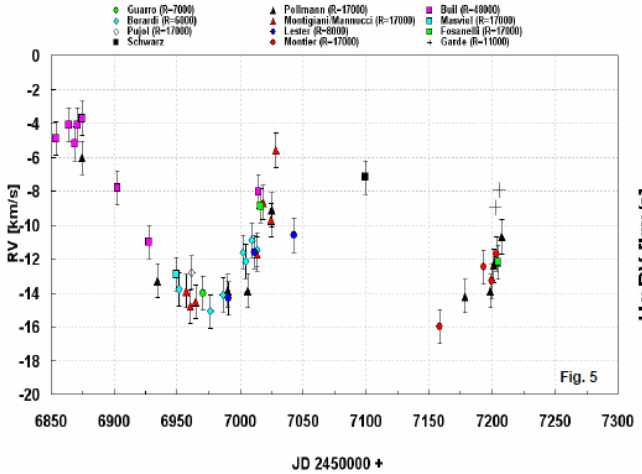


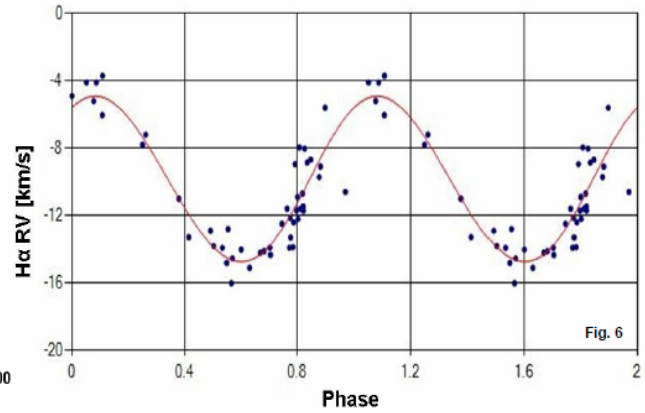
Be monitoring projects

By Ernst Pollmann

Radial velocity analysis of Gam Cas







Period [days]:	194.8084486	+/-	3.053064
Amplitude [km/s]:	4.9063	+/-	0.288141
Eccentricity [-]:	0.02955	+/-	0.048558
Omega [deg]:	282.33136	+/-	162.806591
T0 (JD):	6829.31984	+/-	88.07011
Gamma [km/s]:	-9.85763	+/-	0.239202
RMS [km/s]:	1.31971		

E. Pollmann, 2015/07/05

Short sumary

Fig. 1-3
V/R time series and period analysis of HeI 6678 one-arm density structure around the primary: confirmation of previous results the 280 day period !

Fig. 4
V/R time series data (Fig.1) compared to the γ Cas orbital phase (Harmanec et al. A&A 364). Obviously V/R dependence of the orbital phase:

V/R >1 at orbital phase 1.0 (secondary in "opposition" to the one-arm density Helium zone?). Max. gravitational influence of the secondary?

V/R <1 at orbital phase 0.5 (secondary in "conjunction" to the one-arm density Helium zone?). Min. gravitational influence of the secondary?

Fig. 5 & 6
ARAS group RV campaign confirms with eccentricity approx. zero (0.03) a circular orbit; there is no periastron/apastron.

Open questions
Are the speculations of the orbital dependence of the HeI 6678 V/R applicable?

Authors

Valérie Desnoux
Valerie.desnoux@free.fr
Aras Site at http://www.astrosurf.com/aras/
BeSS database at http://basebe.obspm.fr/basebe/
ArasBeAM portal at http://arasbeam.free.fr/

Ernst Pollmann
ernst-pollmann@t-online.de
International Working Group ASPA
Active Spectroscopy in Astronomy
http://www.astrospectroscopy.de
http://www.astronomie.de/astronomische-fachgebiete