

BeSS report – August 2015

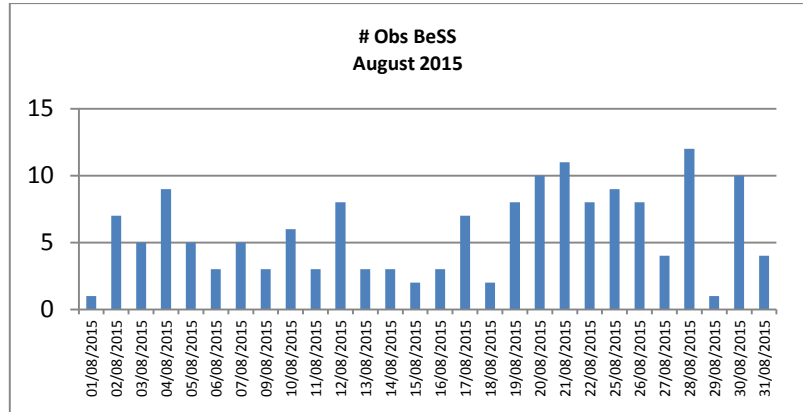
Data compiled by Valérie Desnoux

Be projects section by Ernst Pollmann [here](#)

Observateur	Nb spec
TERRY	29
Sawicki	24
GARDE	17
Lester	16
Favaro	15
MONTIER	12
Leonardi	10
Pollmann	8
Thizy	7
Fosanelli	4
Bohlsen	4
de Bruin	4
DUBREUIL	3
MAUCLAIRE	3
Graham	2
Schwarz	1
Lucas	1

- 160 H-alpha spectra acquired
- 82 objects observed
- 17 observers contributed

The most observed objects were Gam Cas, del Sco, pi Aqr



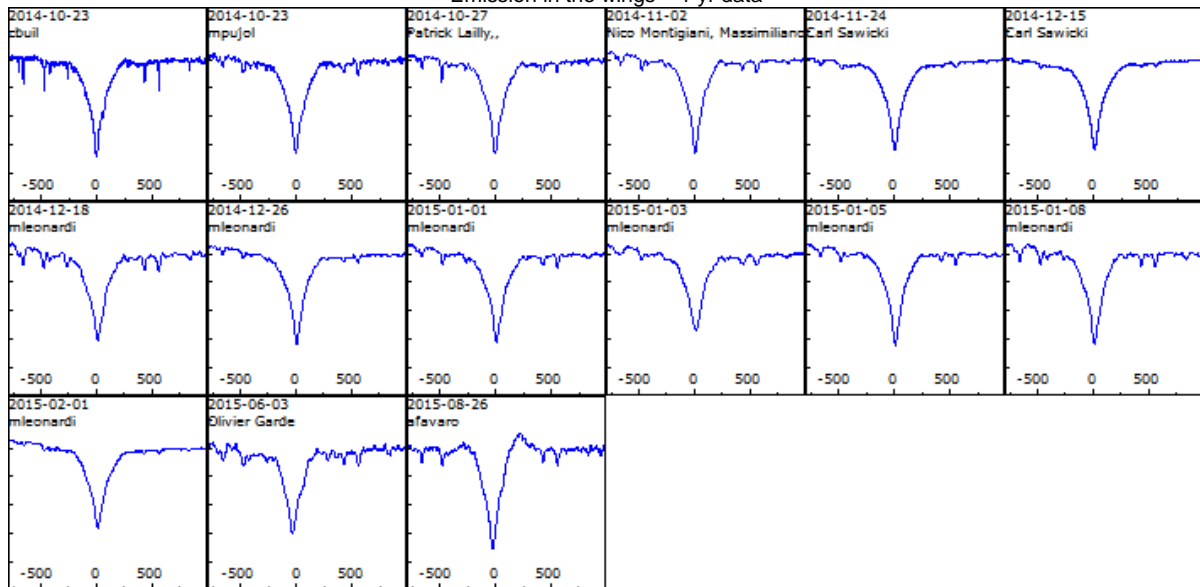
Objects observed

Classique								?	Herbig
gam Cas	V986 Oph	20 Vul	25 Peg	31 Peg	2 Cet	V2144 Cyg	V568 Cyg	51 Oph	HD 163296
PLEIONE	V532 Lyr	iot Lyr	omi And	omi Aqr	LZ Del	HD 187350	bet Psc		V1295 Aql
V442 And	53 Boo	HD 174179	eps Cas	HD 196712	Menkhib	V1427 Cyg	V2163 Cyg		WW Vul
tet CrB	4 Her	V1040 Sco	HD 193182	eps Cap	CW Cep	HD 152541	HD 183339		V380 Cep
del Sco	zet Oph	4 Aql	HD 195407	V2148 Cyg	HD 175863	HD 174705	HD 190864		
QR Vul	V2119 Cyg	HD 224544	BK Cam	V2139 Cyg	HD 174105	HD 168135			
SHELIAC	CX Dra	V378 And	25 Cyg	NT Peg	HD 344313	HD 150422			
66 Oph	HD 171780	lam Cyg	HD 195554	HD 192445	HD 203374	HD 150288			
chi Oph	V2113 Cyg	EW Lac	ELECTRA	V408 Lac	V750 Ara	V2136 Cyg			
48 Lib	25 Vul	pi Aqr	tet Ari	HD 199218	HD 191378	ups Cyg			
omi Her	V987 Cen	14 Lac	HD 169033	V787 Cas	V2382 Oph	nu Cyg			

Emission increase since last observations

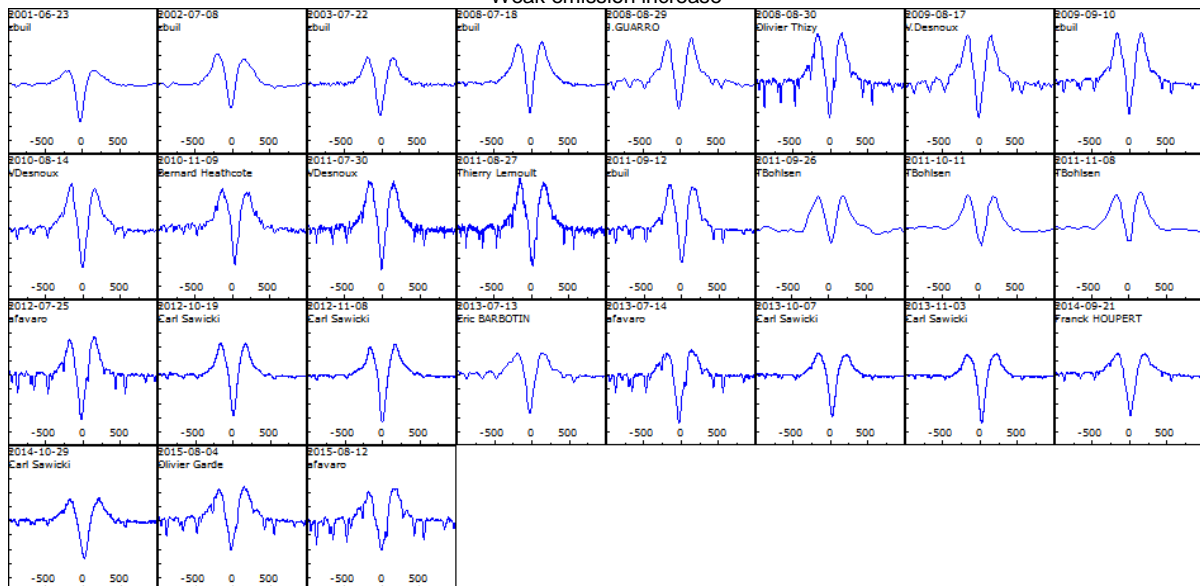
Omi And

Emission in the wings – 1 yr data

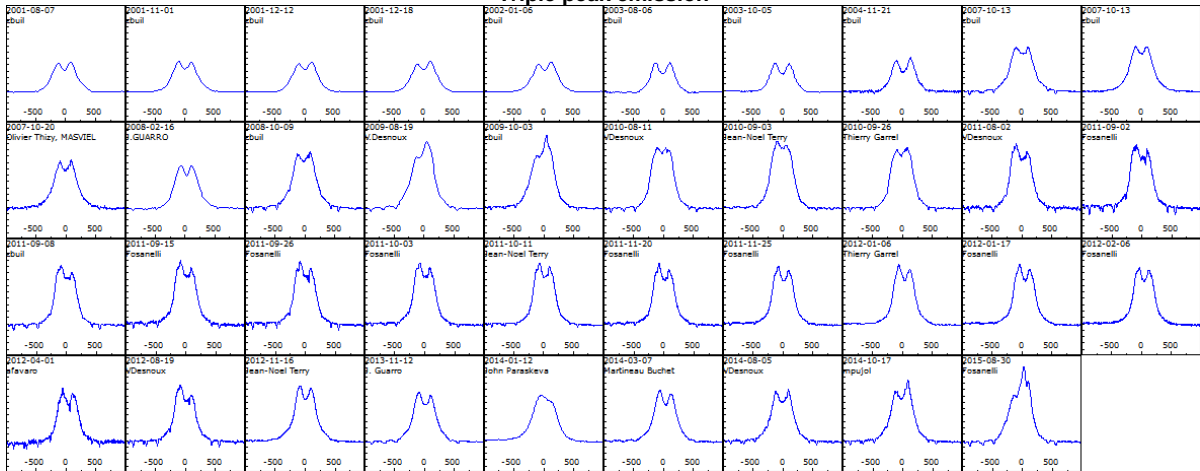


Eps Cap

Weak emission increase

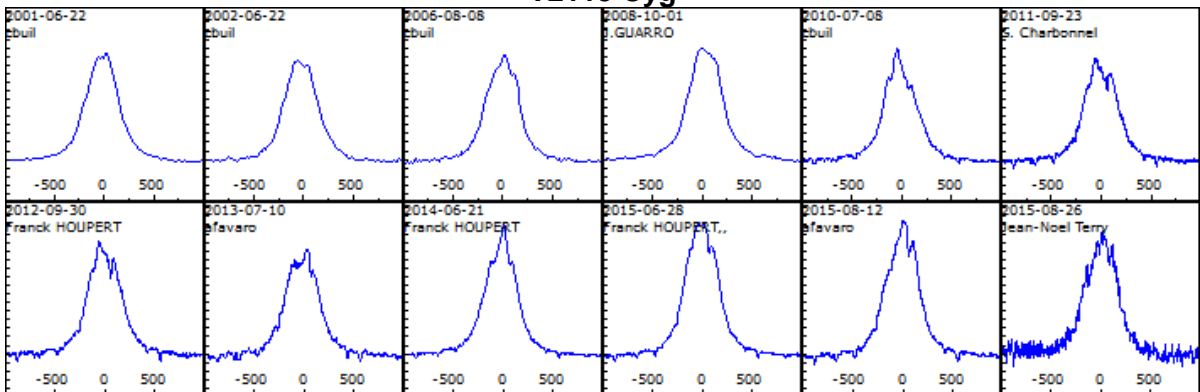


BK Cam
Triple peak emission

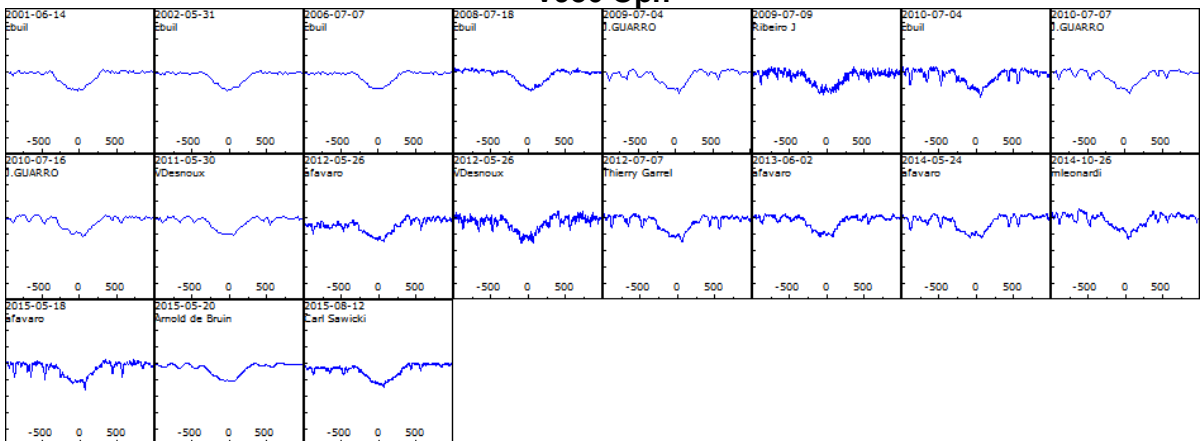


Moderate evolutions of H-alpha line

V2113 Cyg

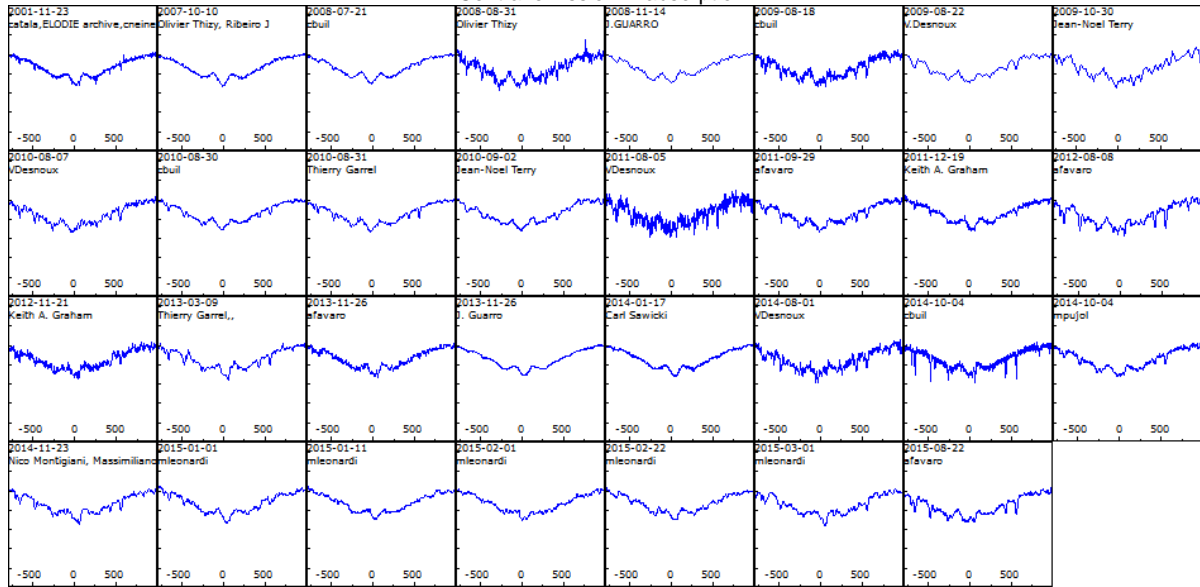


V986 Oph



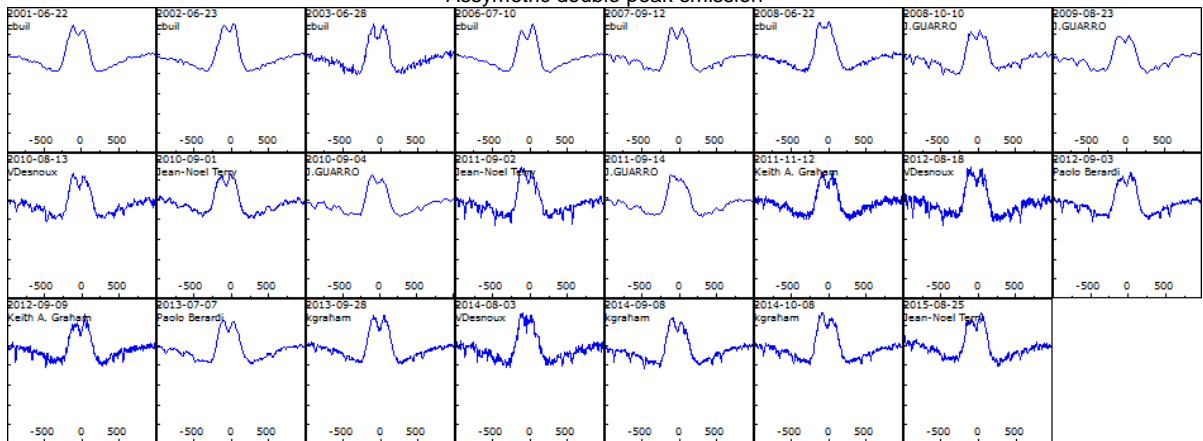
Tet Ari

Central emission in absorption



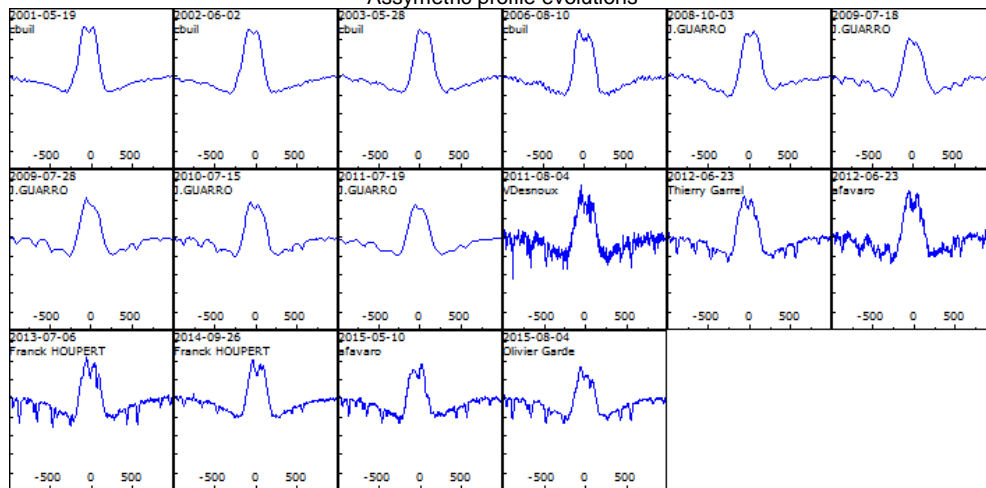
HD 195554

Assymmetric double peak emission



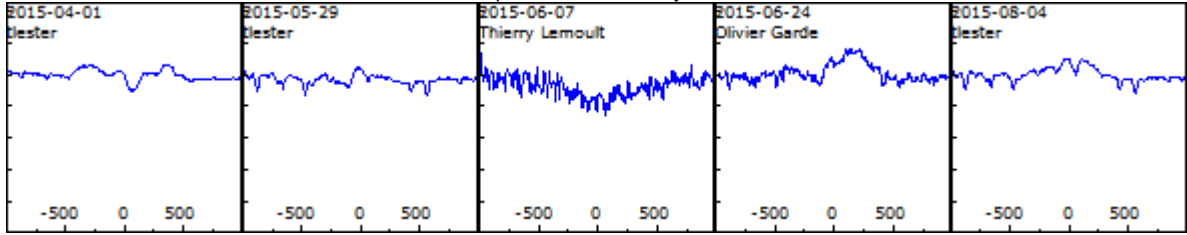
HD 169033

Assymmetric profile evolutions



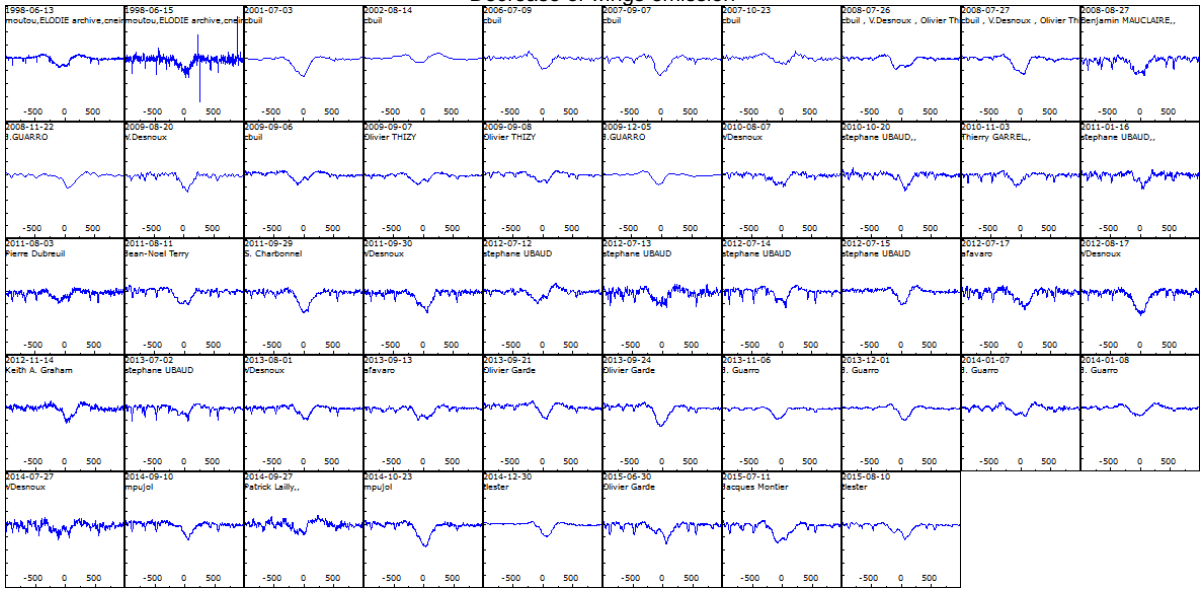
CX Dra

V/R peaks variations 1 yr data



14 Lac

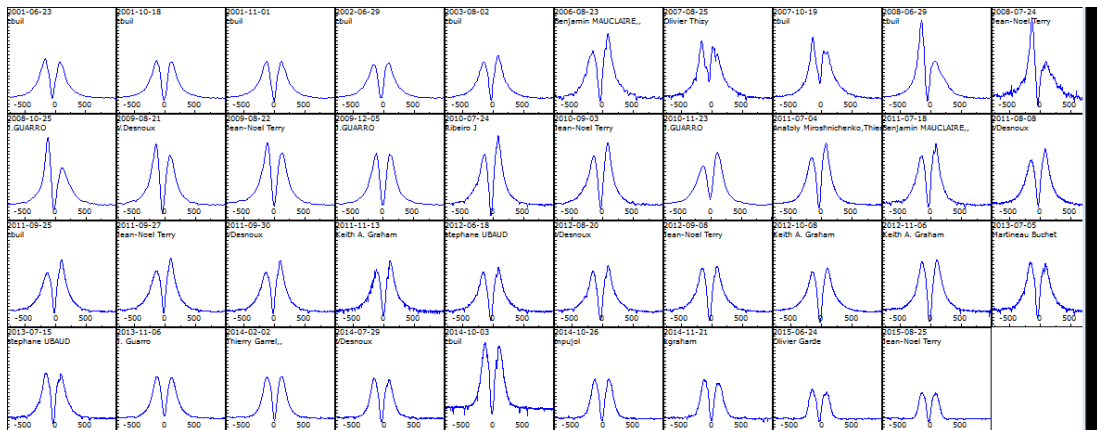
Decrease of wings emission



Emission decrease of H-alpha line

EW Lac

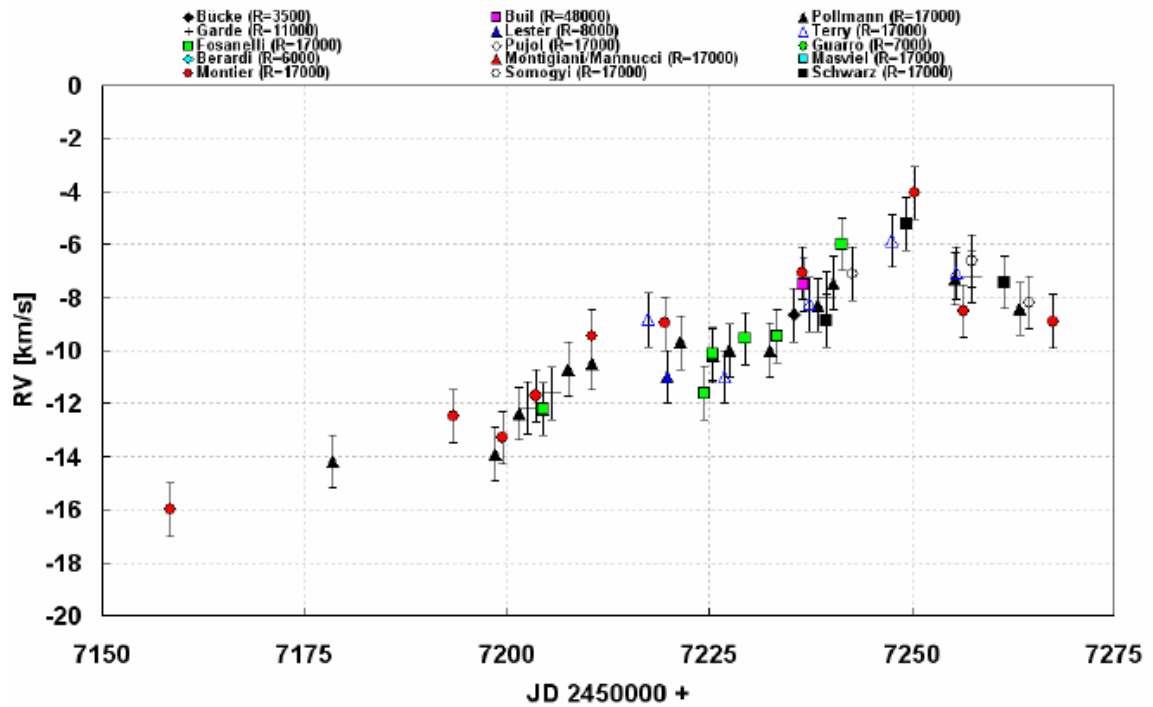
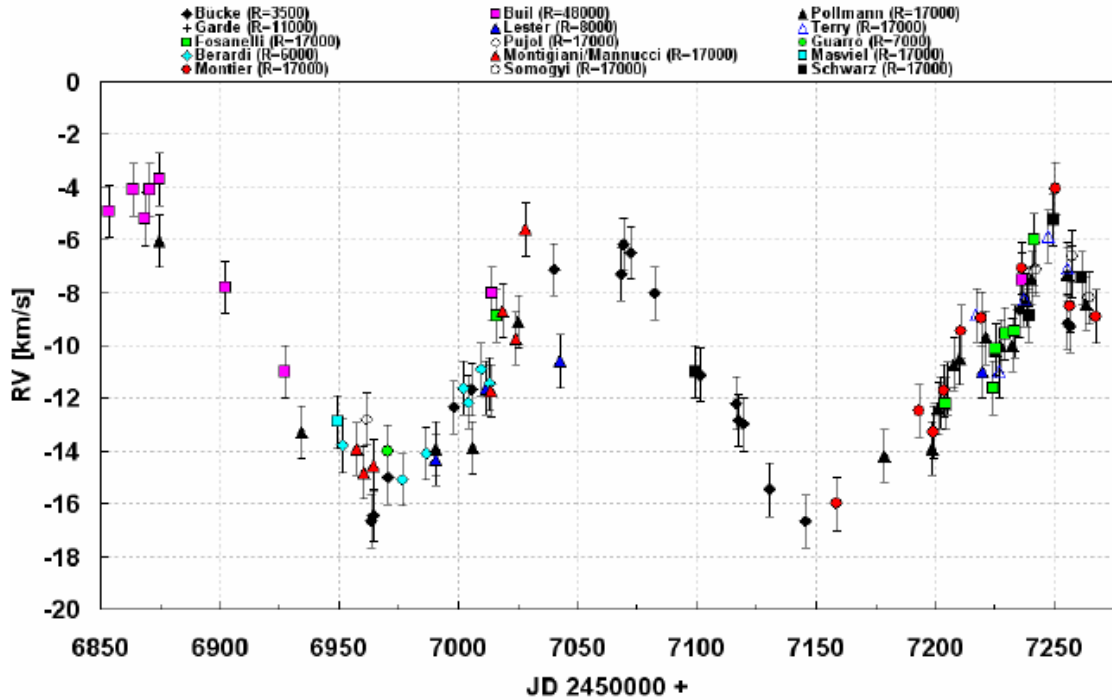
Decrease of emission



Be monitoring projects

By Ernst Pollmann

ARAS Campaign Radial Velocity γ Cas



Dear colleagues, dear Anatoly and Myron!

What's going on within the rising radial velocity branch of gamma Cas? Our common monitoring shows around JD 2457220 to 2457240 (approx.) a "bump", which is not in harmony with the professional statement of a strict circuit orbit and a sine-curve RV (zero-eccentricity) of the companion. What means that? A further companion? What our professional colleagues are saying (a copy goes to A. Miroshnichenko and Myron Smith). At the OHP meeting we would have a great opportunity to continue this monitoring.

Ernst Pollmann

Comment Prof. Dr. Myron Smith

This is most interesting. And as I recall your RV measurements are taken by the Halpha emission profile. I have to think that this kind of change is caused by changes in the morphology of a no longer perfectly axisymmetric disk. As you know in the 1980-1990s Halpha emission showed a double peak (V, R components) that were probably caused by a precessing 1-armed structure (see Okazaki's work in the 1980s) for the instability that causes this. These features disappeared around the year 2000. I wonder if they are coming back. If so, they would be restarting at a random phase. The important point probably is to capture the timescale for this growth - and keep following it.

Comment Prof. Dr. Anatoly Miroshnichenko

I agree with Myron. We have noticed earlier that the Halpha line in the spectrum of Gamma Cas shows additional variations to those due to the orbital motion. This trend does not seem to be regular. Both Peter Harmanec and I removed it before determining the orbital solution. It definitely deserves a further study. I think we need to follow Gamma Cas for a longer period of time to determine the radial velocity trend. This phenomenon, as I pointed out earlier, has been described specifically for Gamma Cas. Perhaps other lines need monitoring as well to suggest a better explanation for the observed variations. A short summary with a figure showing recent changes in the radial velocity could be added to the monthly report that the BeSS users publish to alert other observers.

Comment Prof. Dr. Myron Smith

To add to Anatoly's comment, it just occurred to me to say that I learned yesterday that another astronomer has observed gamma Cas with the X-ray satellite XMM. The data will be archived in the satellite's public site soon and one of my colleagues may be able to see what the status of the local column density is. If it is again high, it may tell us that the star is in outburst again. It would be good to confirm this, if this is the case. The confirmation will come in the photometry (like Greg Henry's APT data) and perhaps in changes in the spectral lines - particularly those that show emission (like Halpha).

Authors

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BeSS database at <http://basebe.obspm.fr/basebe/>

ArasBeAM portal at <http://arasbeam.free.fr/>

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International Working Group ASPA

Active Spectroscopy in Astronomy

<http://www.astrospectroscopy.de>

<http://www.astronomie.de/astronomische-fachgebiete>