

BeSS report – Juillet 2015

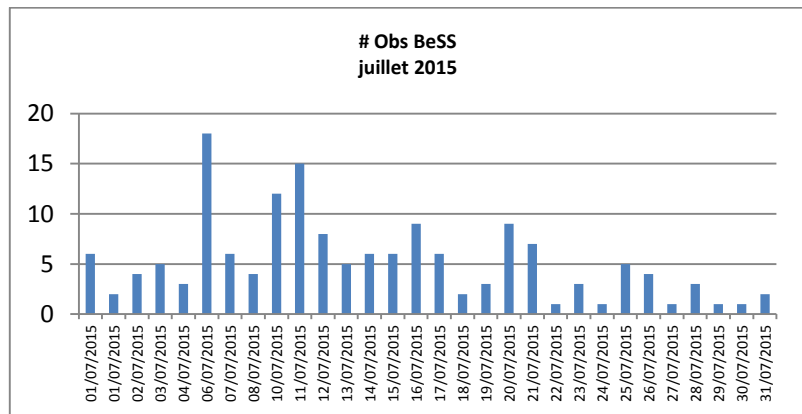
Data compiled by Valérie Desnoux

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

Observateur	Nb spec
Favaro	20
Lester	19
Sawicki	18
HOUPERT	15
GARDE	14
Pollmann	14
TERRY	13
MONTIER	9
de Bruin	8
Thizy	8
Fosanelli	5
Graham	4
Martineau	3
Guarro Fló	2
Sollecchia	2
Ribeiro	1
MAUCLAIRE	1
Bohlsen	1
Berardi	1

- 158 H-alpha spectra acquired
- 80 objects observed
- 19 observers contributed

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



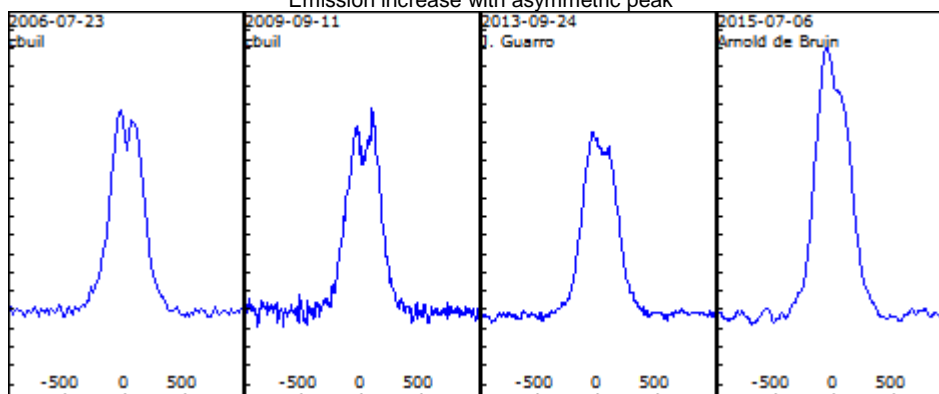
Objects observed

Classique									?	Herbig
gam Cas	53 Boo	20 Vul	V378 And	V558 Lyr	NT Peg	HD 174886	V1466 Aql	51 Oph	HD 179218	
tet CrB	BD+23 3183	7 Vul	lam Cyg	ups Sgr	V341 Sge	HD 161306	HD 228256		V1295 Aql	
del Sco	zet Oph	iot Lyr	18 And	V1294 Aql	HD 206773	HD 173371	V1443 Aql		WW Vul	
QR Vul	HD 168957	bet Cyg B	pi Aqr	60 Cyg	V848 Ara	V2135 Cyg	HD 181308			
SHELIAK	HD 177648	HD 174179	HD 194244	16 Peg	V2163 Cyg	V1362 Cyg	HD 228041			
66 Oph	59 Cyg	V1040 Sco	14 Lac	V421 Cep	kap Aql	HD 203374	HD 181709			
chi Oph	V923 Aql	V2385 Oph	V2136 Cyg	bet Psc	V439 Cep	HD 176630				
48 Lib	25 Vul	64 Ser	11 Cyg	31 Peg	V1448 Aql	HD 184767				
HD 166256	28 Cyg	4 Aql	ups Cyg	HD 196712	HD 344800	V1463 Aql				
z Her	V2315 Oph	V1339 Aql	25 Peg	V2139 Cyg	eps PsA	HD 344873				

Emission increase since last observations

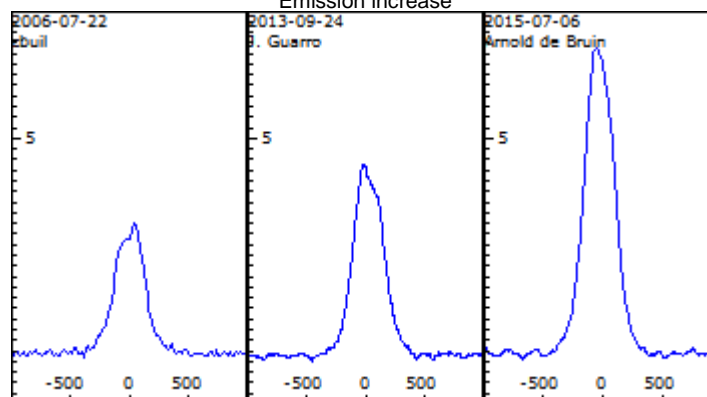
HD 181709

Emission increase with asymmetric peak



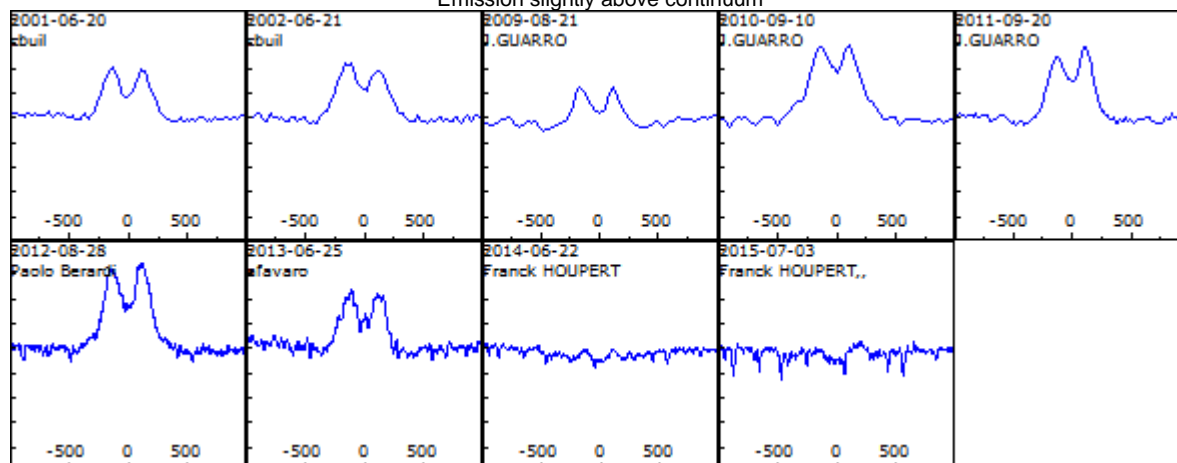
HD 181308

Emission increase



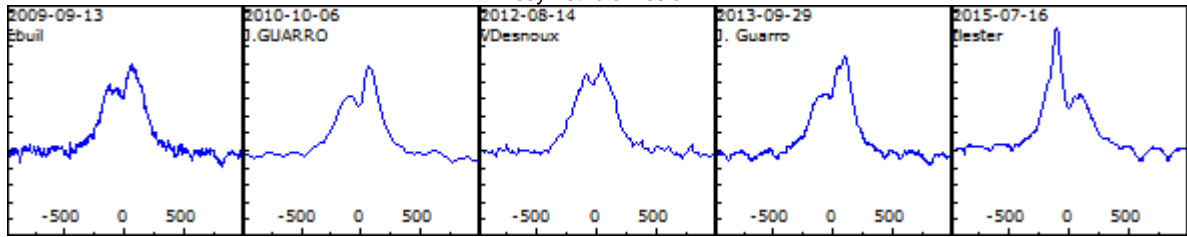
hd177648

Emission slightly above continuum



V1362 Cyg

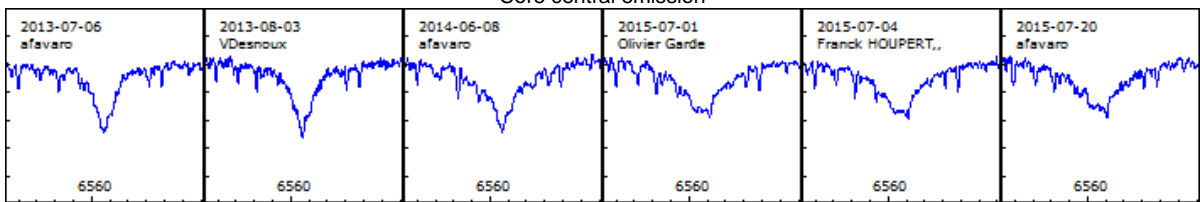
Assymmetric emission



Moderate evolutions of H-alpha line

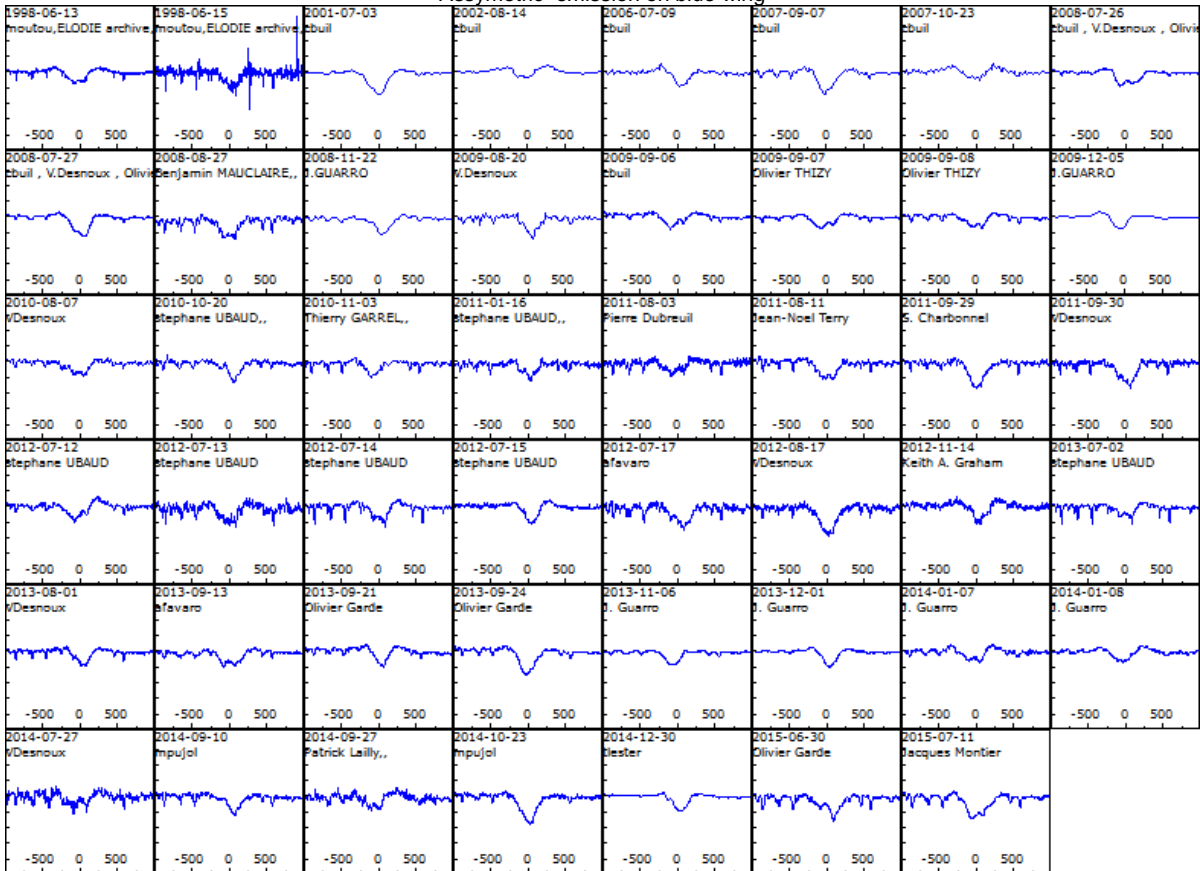
7 Vul

Core central emission



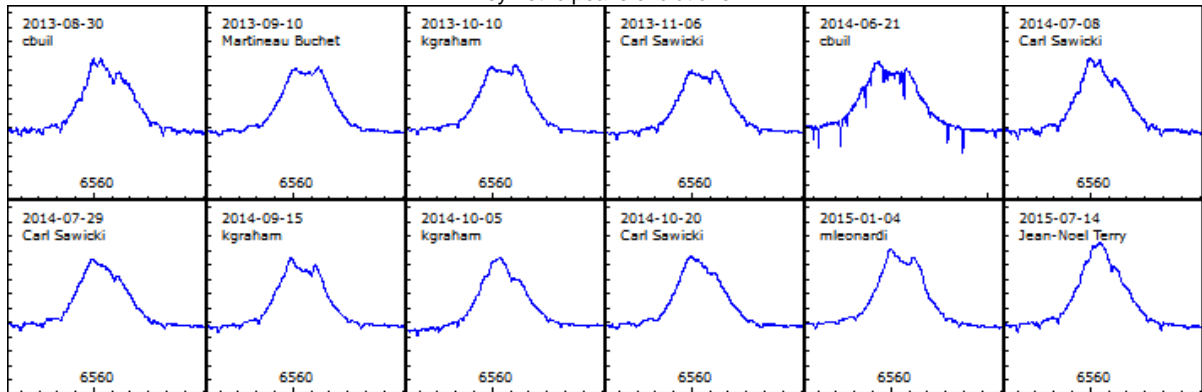
14 Lac

Assymmetric emission on blue wing



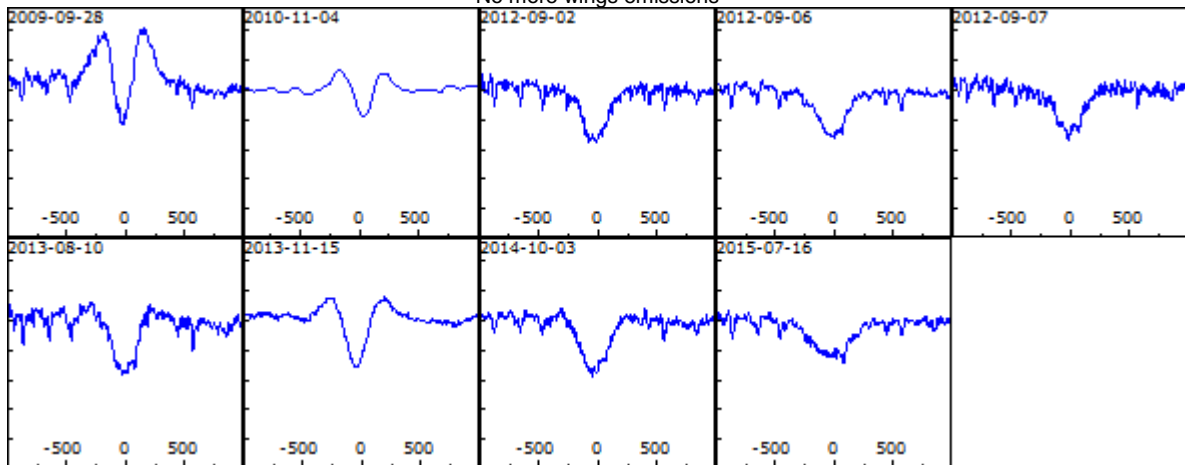
59 Cyg

Asymmetric peaks evolutions



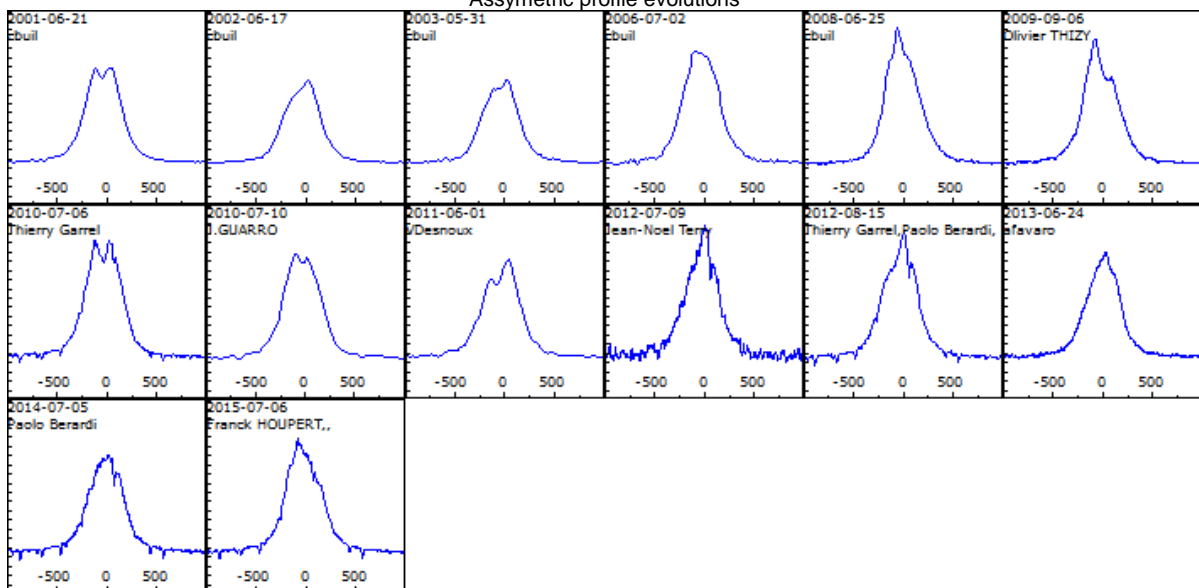
V439 Cep

No more wings emissions



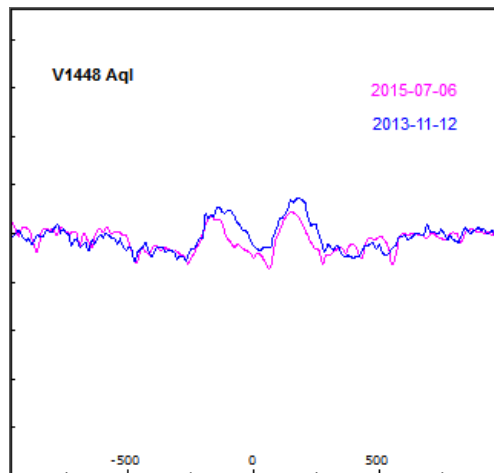
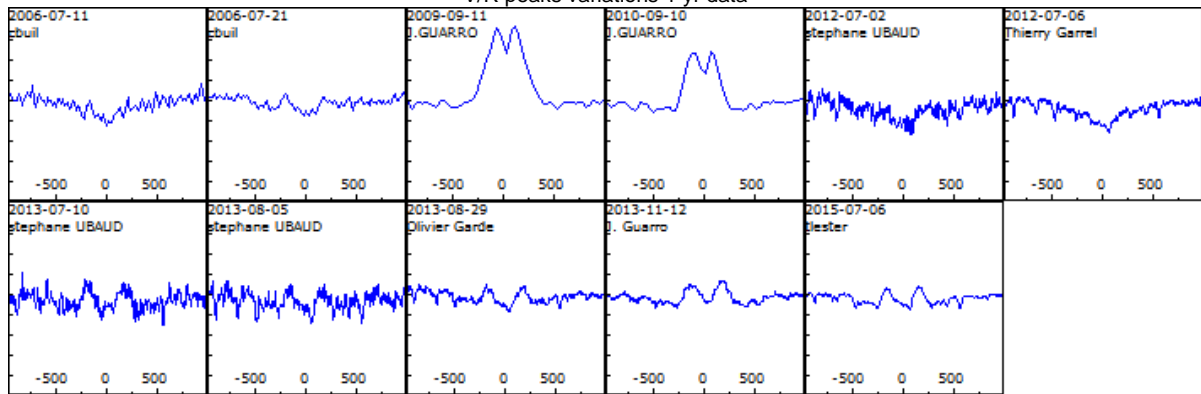
V558 Lyr

Assymmetric profile evolutions



V1448 Aql

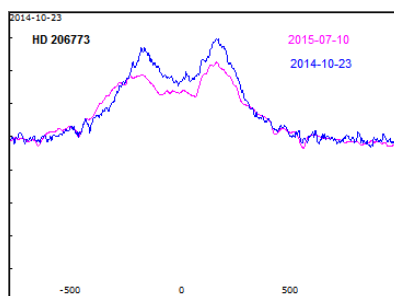
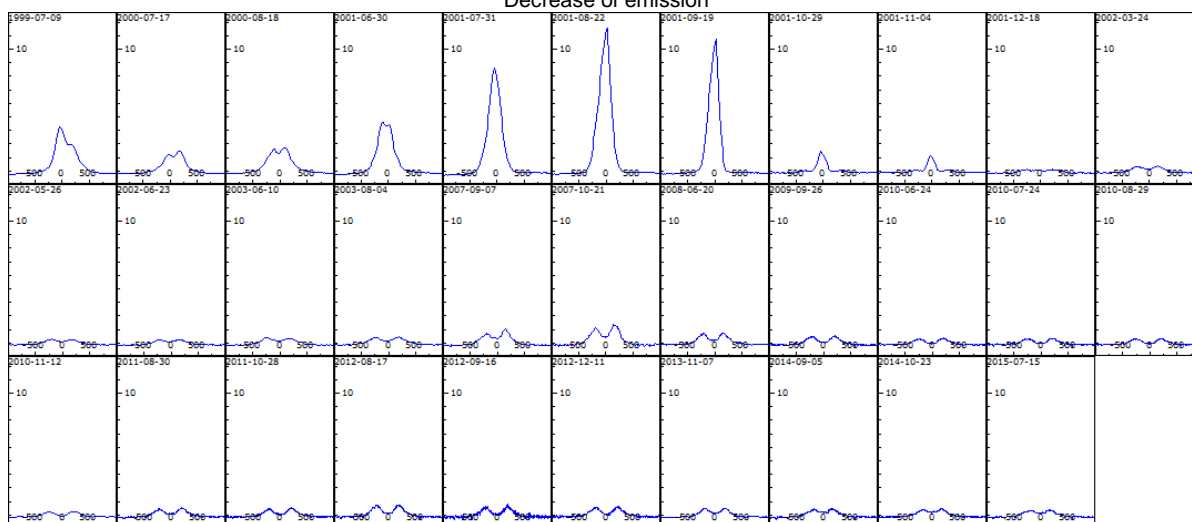
V/R peaks variations 1 yr data



Emission decrease of H-alpha line

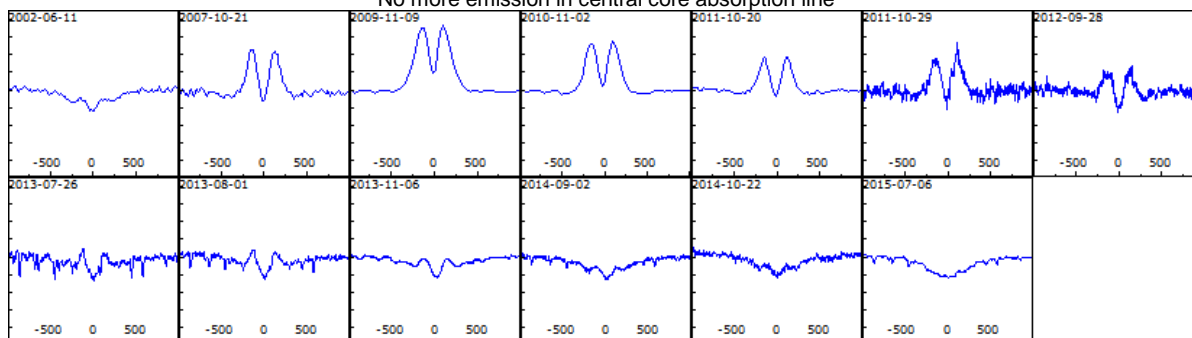
HD206773

Decrease of emission



V2163 Cyg

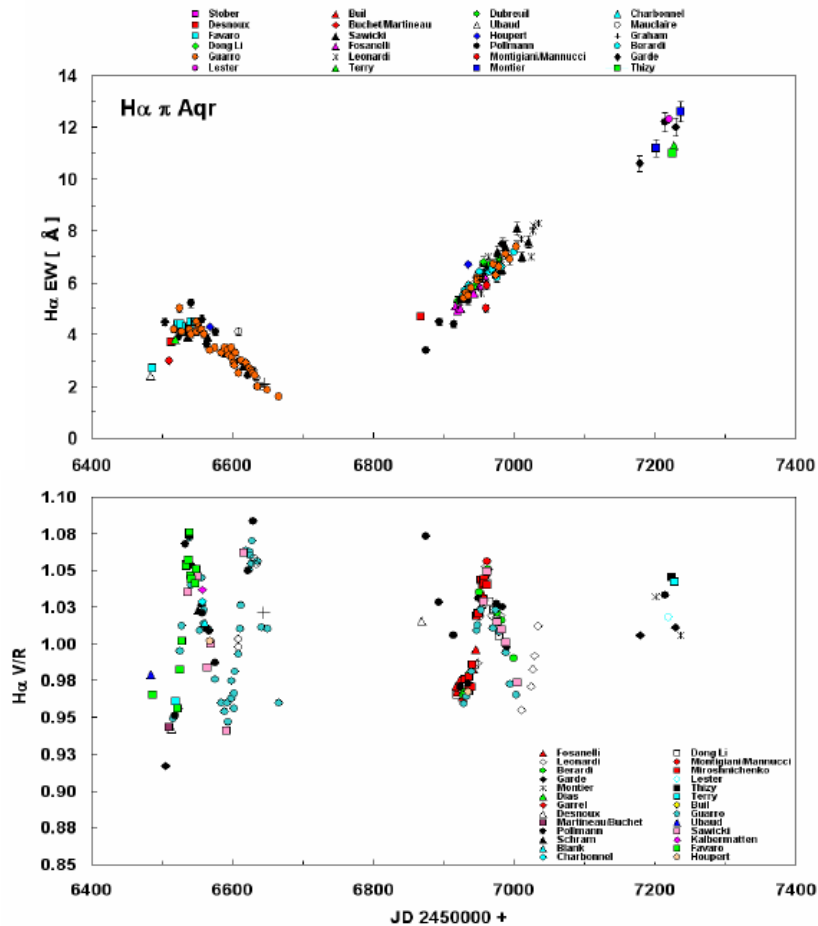
No more emission in central core absorption line



Be monitoring projects

By Ernst Pollmann

Pi Aqr



The main interesting result of the monitoring seems to be the independency of the V/R periodicity ($P=86d$) of the development in EW. What we see is that Be stars with small disks that show weak line emission (such as Pi Aqr between 2001 and 2015) may show phase-locked V/R variations. Be stars with larger disks (or with disks that contain more mass) and stronger line emission show much larger periods of the V/R variations that do not match the orbital periods (examples are Gamma Cas, Zeta Tau, 48 Lib).

What happens when a Be star increases its line emission (or the disk mass, which is the same), so that the disk transits from small to large, is not known. I am suggesting that the phase-locked V/R variations will not be observed any more, and a larger period V/R variations will be observed instead. However, when the phased-locked behavior stops and when the larger period will start to show up (and whether this larger period will even be possible) is unknown as well.

If Pi Aqr is indeed going to increase its disk mass, then it will be the right target to get answers to all the above questions. Perhaps, there are already some data on another Be star or stars that show such a transition between different periods. I have not studied this subject. In any case, a dense monitoring of Pi Aqr is very valuable.

Prof. Dr. Anatoly Miroshnichenko & E. Pollmann, 2015-08-06

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International Working Group ASPA

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<http://www.astrospectroscopy.de>

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