



BeSS report – November 2020

H-alpha monitoring

Data compiled by
Valérie Desnoux

Repository
<http://valerie.desnoux.free.fr/BeSS/>

[Zoom on... V532Lyr](#)

192 404 22

Stars

Spectra

Observers

Events of the month...

EE: Emission Event, ME: Moderate Events, DE: Decreasing Event

Observateur	Nb spec
Thizy	93
Buil	81
Bryssinck	47
Stiewing	38
James	35
bertrand	21
Charbonnel	15
de Bruin	13
Pastor	11
Guarro Fló	11
Leadbeater	9
Pollmann	9
Sollecchia	7
Ventura	2
GARDE	2
Curry	2
Jeffredo	2
Graham	2
Gurney	1
Doctor	1
Van den Broeck	1
DUBREUIL	1
Total général	404

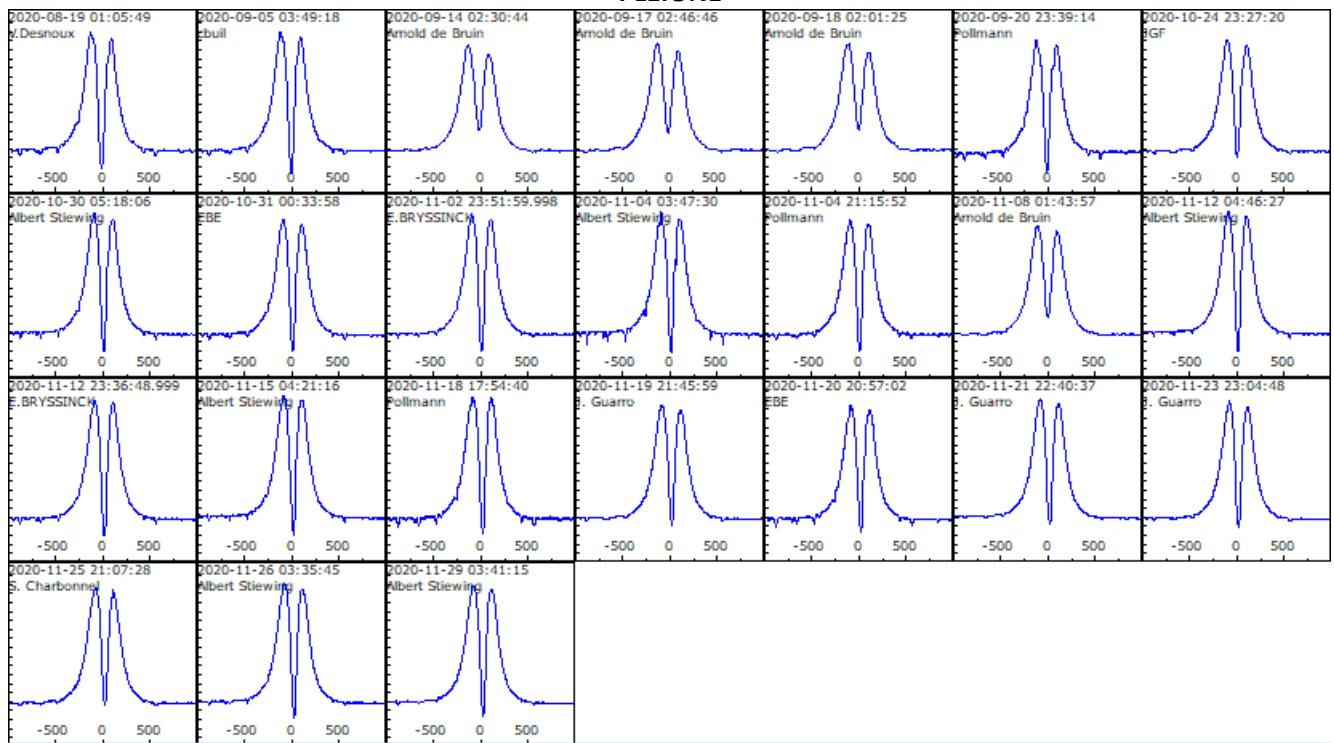
EE	ME	DE
PLEIONE	HD 237091	V357 Lac
11 Cam	14 Lac	Iam Eri
BN Gem	228 Eri	HD 237056
V1362 Cyg	V473 Per	bet Psc
HD 224544	CX Dra	OT Gem
V1165 Tau	HD 232552	Iam Cyg
V435 Cep	BT CMi	105 Tau
HD 192445	HD 45995	V1448 Aql
V532 Lyr	AX Mon	V420 Cep
HD 21641	120 Tau	EW Lac
12 Aur	RW Per	56 Eri
HD 23800	HD 53416	V782 Cas
V374 Cep	CQ Tau	12 Vul
HD 215605		V434 Aur
eta Ori		V2120 Cyg
HD 277707		25 Ori
HD 249695		V978 Cas
V416 Aur		V817 Cas
PZ Gem		ACHERNAR
QY Gem		V447 Aur
HD 228535		RW Tau
HD 224599		V438 Aur
HD 57682		HD 45626
HD 259440		BD+37 1292
BD+54 2718		RY Gem
V594 Cas		V1374 Ori
		eps PsA
		V1466 Aql
		V404 Lac
		V2172 Cyg
		V506 Per
		V504 Per
		HD 51506
		V725 Mon
		HD 53667
		HD 50891

Objects observed

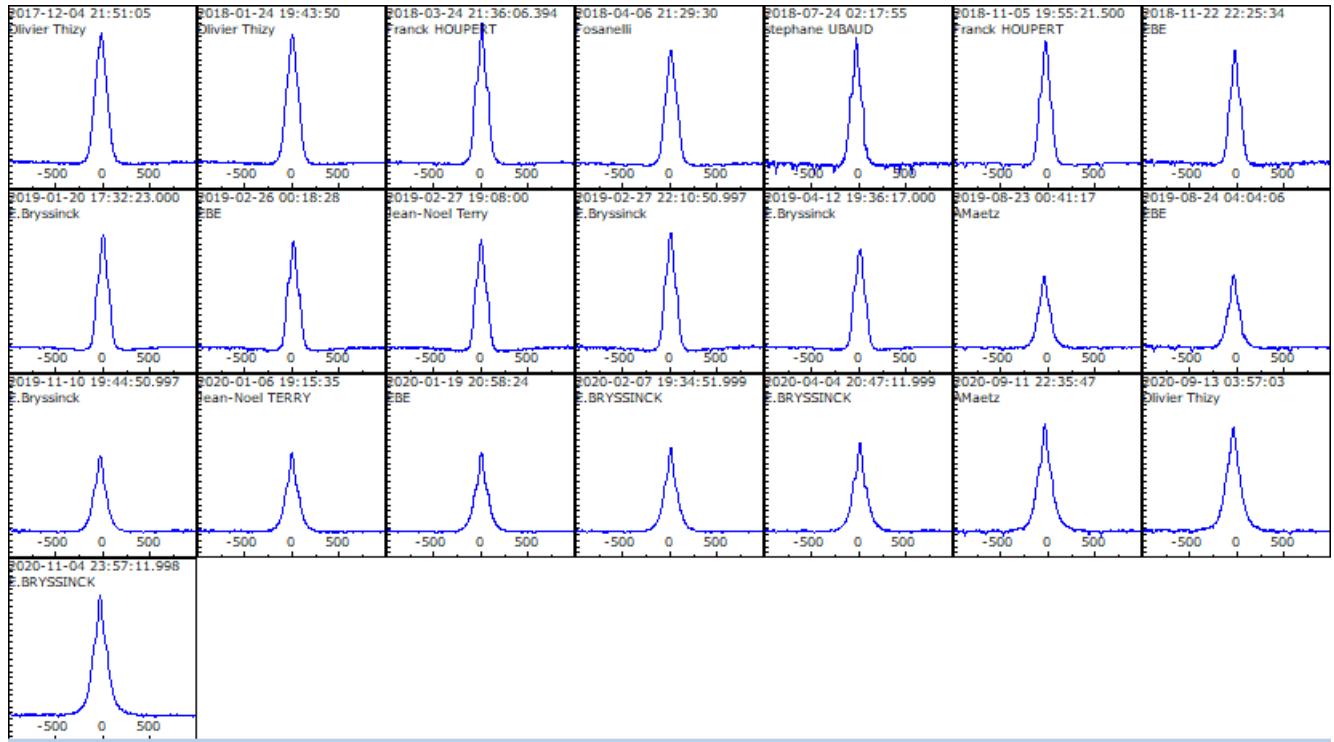
Classique						Herbig	
V442 And	PLEIONE	pi Aqr	V357 Lac	V818 Cas	CT Cam	ELECTRA	CQ Tau
gam Cas	28 Cyg	25 Cyg	lam Eri	13 Tau	HD 237056	bet Psc	HD 38120
tet Ari	HD 29866	HD 206773	18 And	zet Tau	OT Gem	HD 237091	HD 249879
14 Lac	BK Cam	MEROPE	LQ And	11 Cam	V1339 Aql	48 Per	HD 290409
228 Eri	2 Ori	Menkhib	V811 Cas	V731 Tau	V473 Per	BN Gem	
QR Vul	69 Ori	omi And	lam Cyg	phi And	V1362 Cyg	HD 21455	
HD 224544	HD 21620	105 Tau	ALCYONE	HD 20899	V1448 Aql	CX Dra	?
V420 Cep	EW Lac	HD 9709	NW Ser	bet CMi	V1165 Tau	HD 44783	V742 Mon
15 Mon	HD 30123	56 Eri	V435 Cep	V2148 Cyg	HD 175511	omi Cas	B[e]
HD 175863	HD 192445	V782 Cas	HD 171780	BD+62 99	12 Vul	HD 13867	V594 Cas
V532 Lyr	16 Peg	HD 18552	V777 Cas	NT Peg	HD 21641	V434 Aur	CI Cam
12 Aur	HD 23800	DE Cam	V2120 Cyg	BD+60 2584	BD+61 2380	V374 Cep	
HD 177648	7 Vul	HD 232552	EE Cep	V2175 Cyg	HD 215605	BD+61 2355	
BD+61 2292	5 Cnc	ome Ori	19 Mon	HD 79066	BT CMi	HD 55806	
V725 Tau	HD 45995	4 Aql	BD+60 2600	25 Ori	HD 24479	EM* AS 16	
HD 228860	eta Ori	V1369 Ori	HD 21650	AX Mon	V549 Per	V978 Cas	
V817 Cas	V420 Aur	V439 Cep	120 Tau	ACHERNAR	RW Per	HD 237060	
HD 42477	HD 30677	BD+62 2346	V424 Per	BD+59 246	BD+55 81	HD 277707	
V447 Aur	RW Tau	V438 Aur	HD 253214	HD 250163	HD 250028	V715 Mon	
HD 249695	V416 Aur	HD 27846	HD 45626	BD-06 1895	BD+37 1292	RY Gem	
HD 53416	PZ Gem	V695 Mon	V1374 Ori	QY Gem	HD 253215	HD 249179	
QQ Gem	eps PsA	V1466 Aql	V404 Lac	HD 228535	HD 276886	HD 241570	
V2172 Cyg	HD 224599	BD+57 515	BD+63 261	V506 Per	HD 51404	HD 50581	
V504 Per	BD+59 2829	HD 35345	HD 57682	HD 51506	V725 Mon	HD 46484	
HD 53667	HD 259440	HD 244894	HD 331976	HD 355402	BD+62 2158	HD 228658	
BD+54 2718	V413 Lac	EM* StHA 198	BD+35 1169	V503 Per	BD+56 489	BD+62 1	
HD 14162	BD+60 368	BD+60 393	HD 253659	EM* GGA 148	BD+55 589	HD 50850	
HD 50891	HD 56039	HD 276738					

Emission increase since last observations

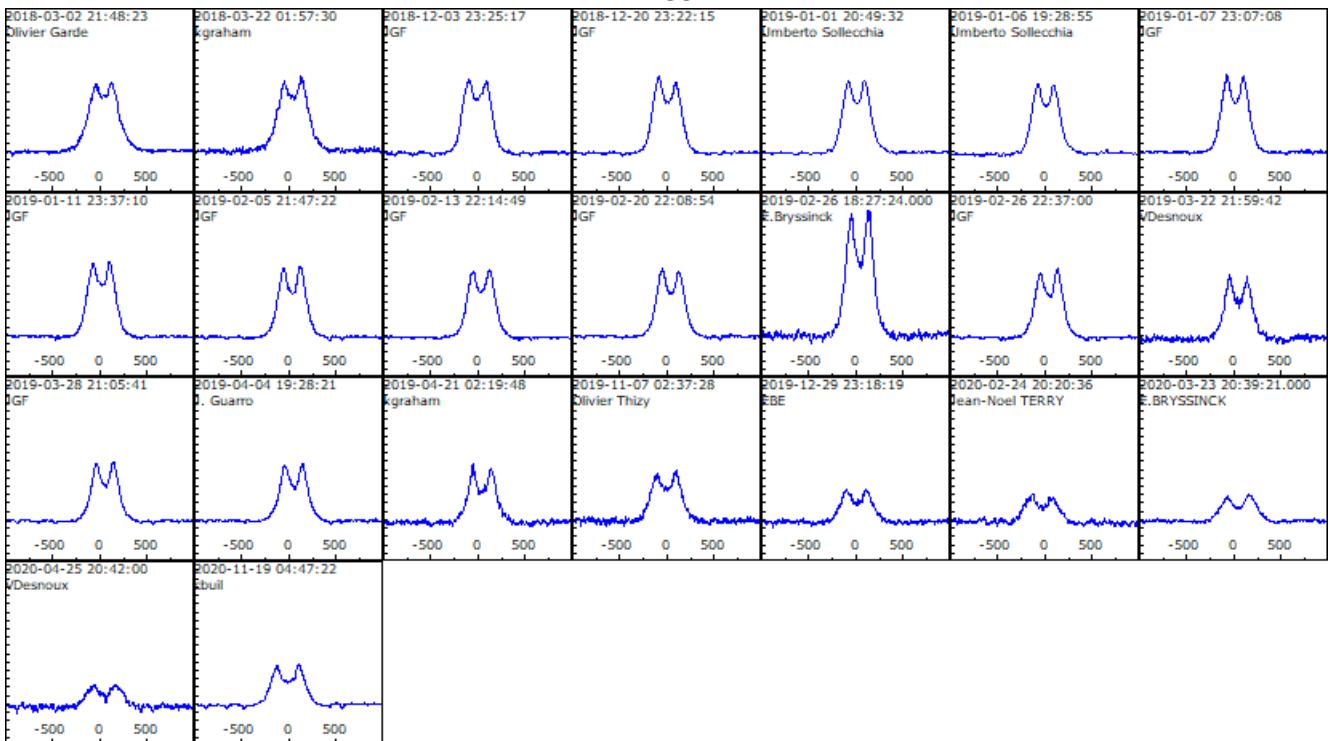
PLEIONE



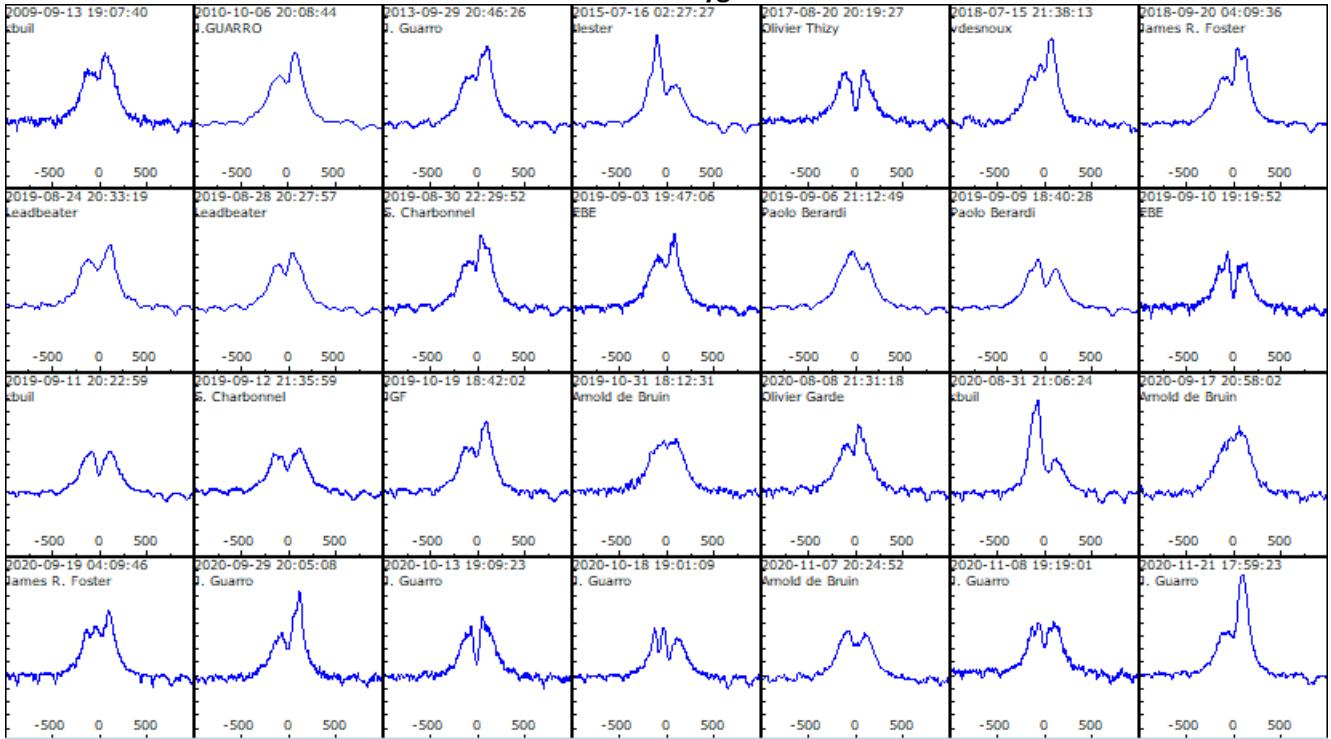
11 Cam



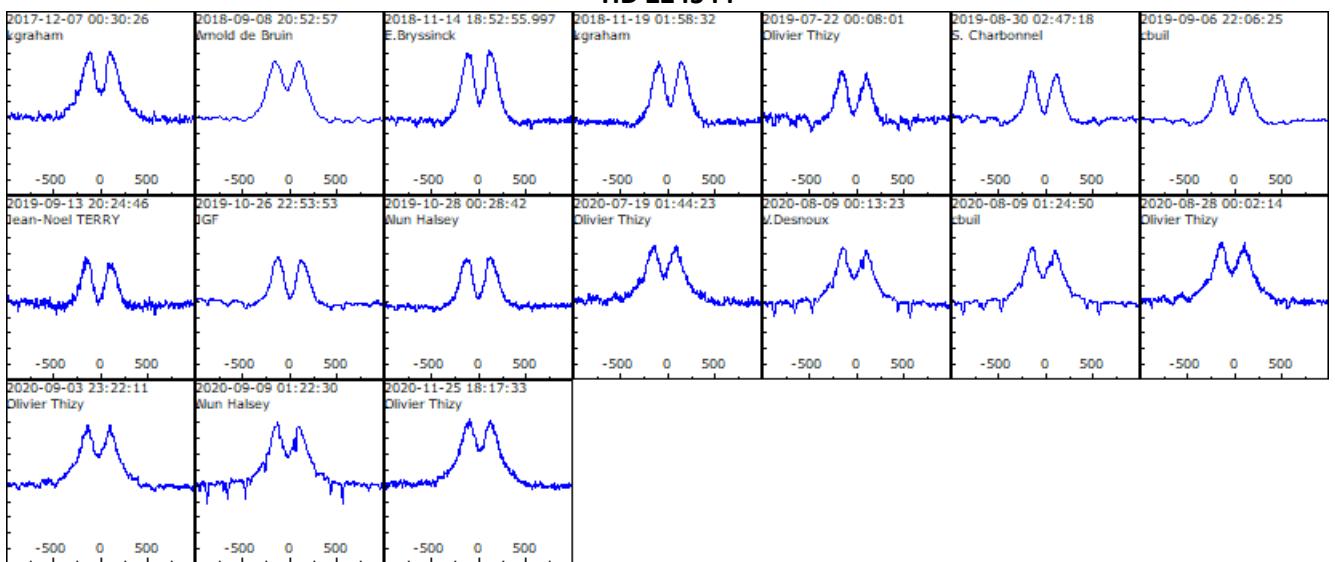
BN Gem



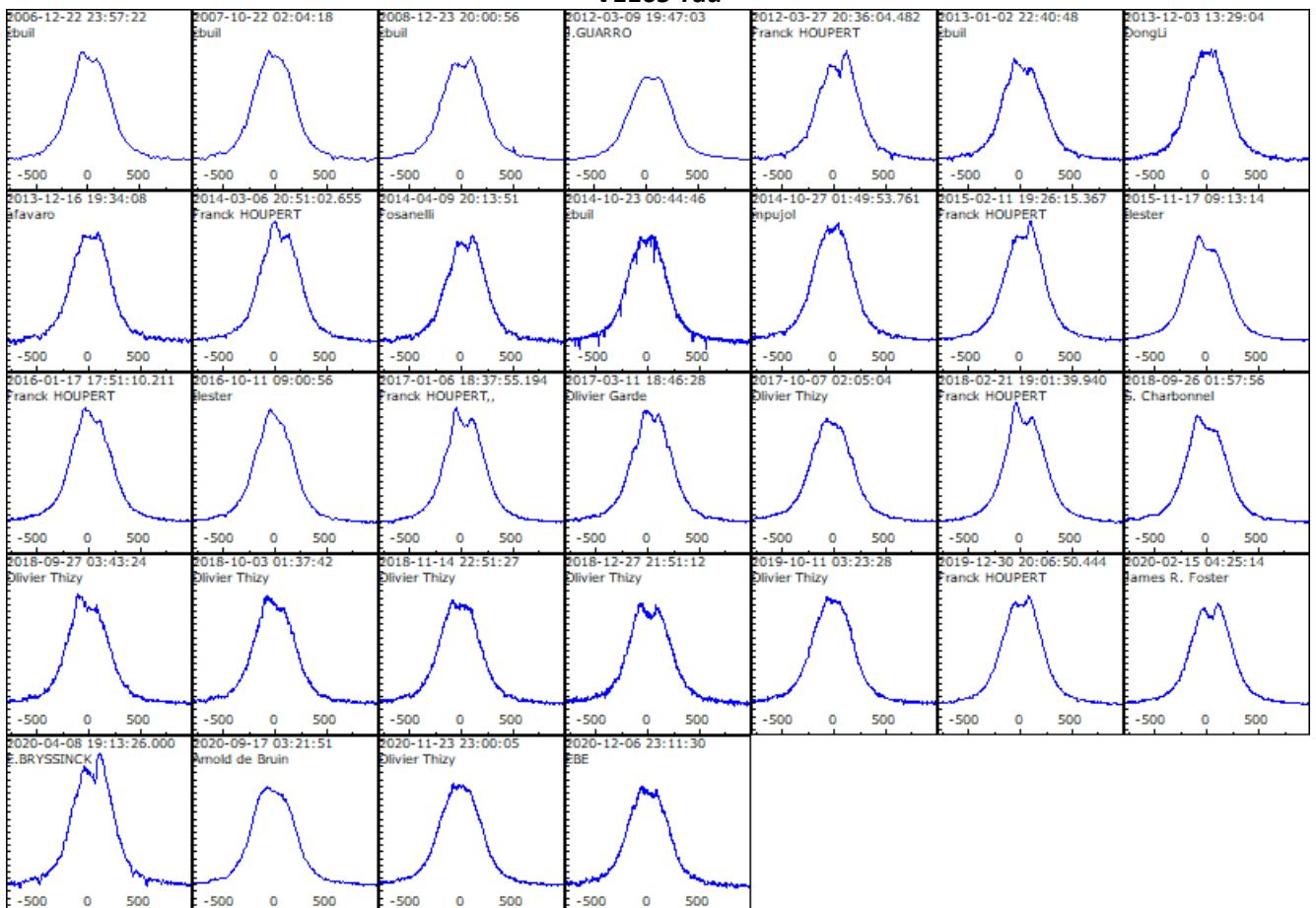
V1362 Cyg



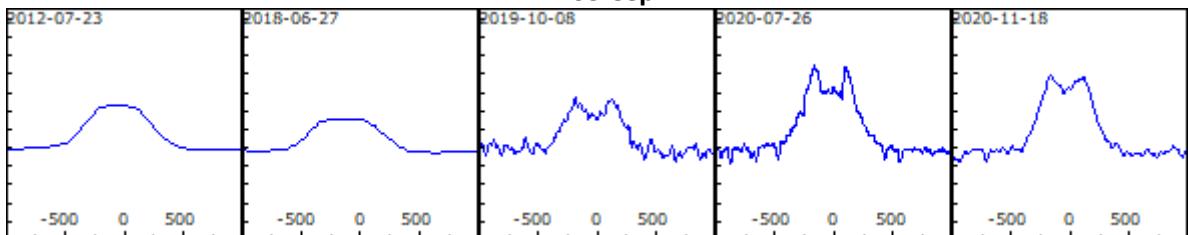
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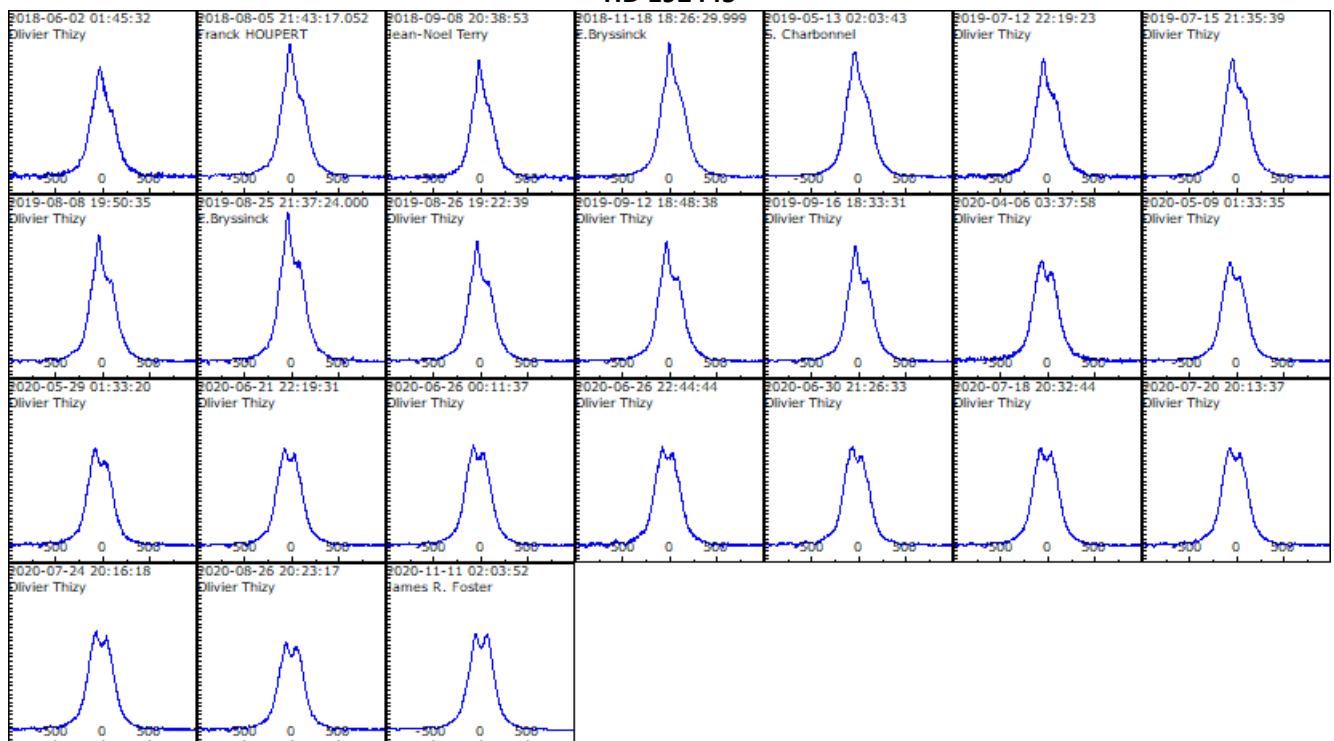
V1165 Tau



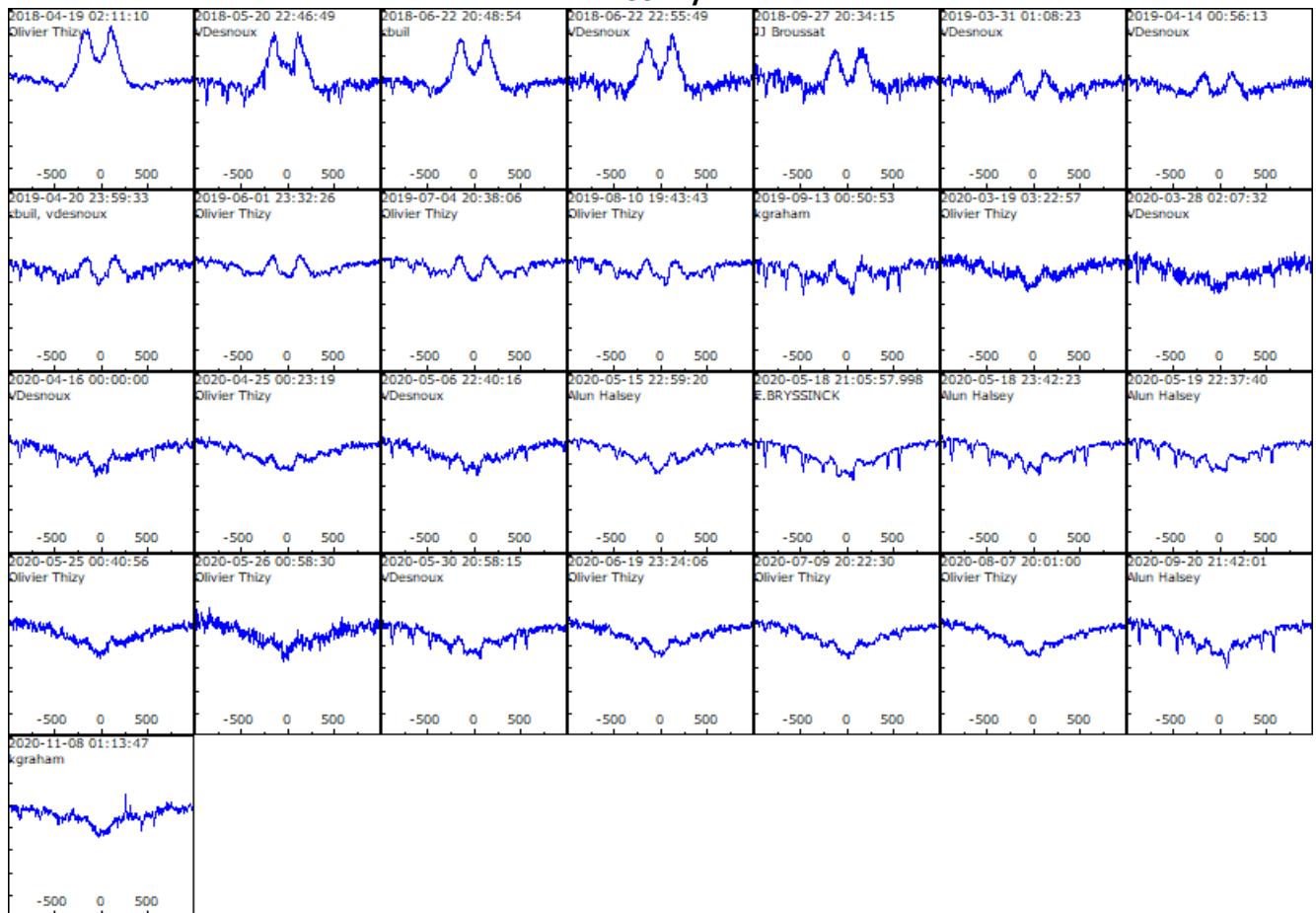
V435 Cep



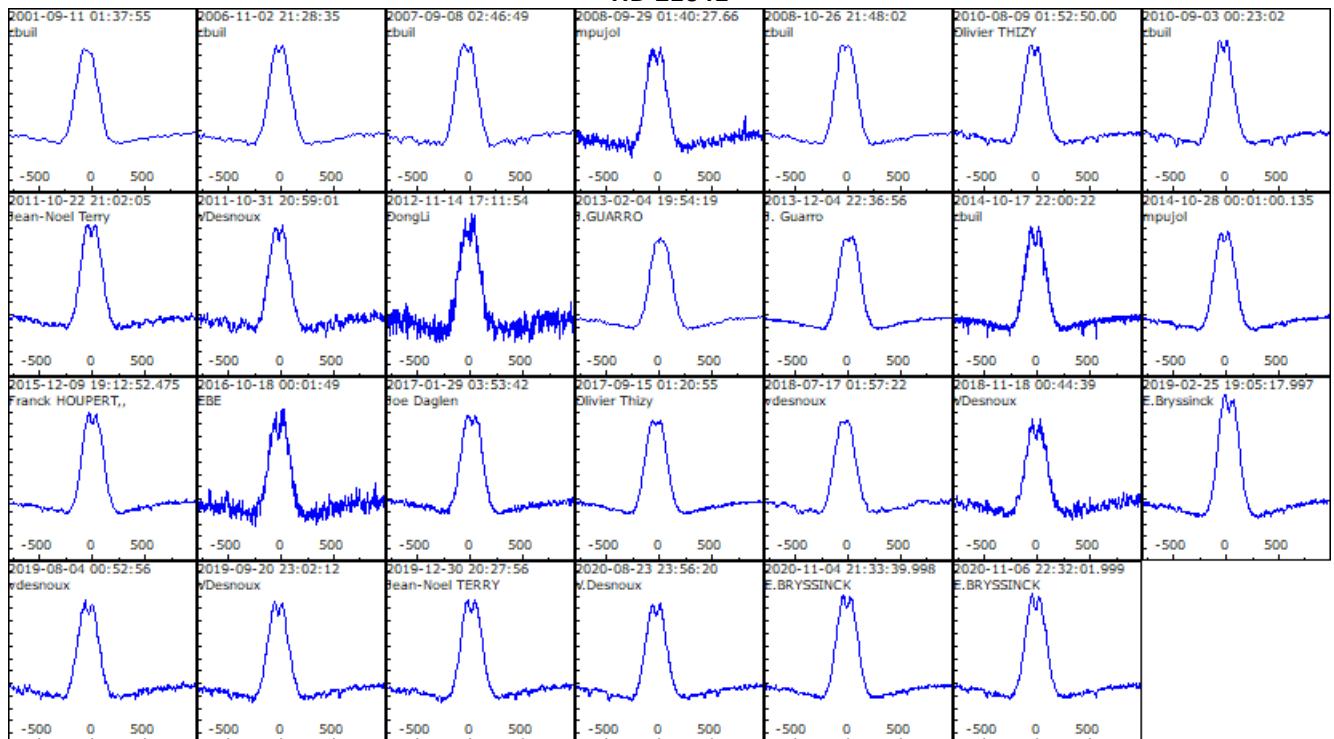
HD 192445



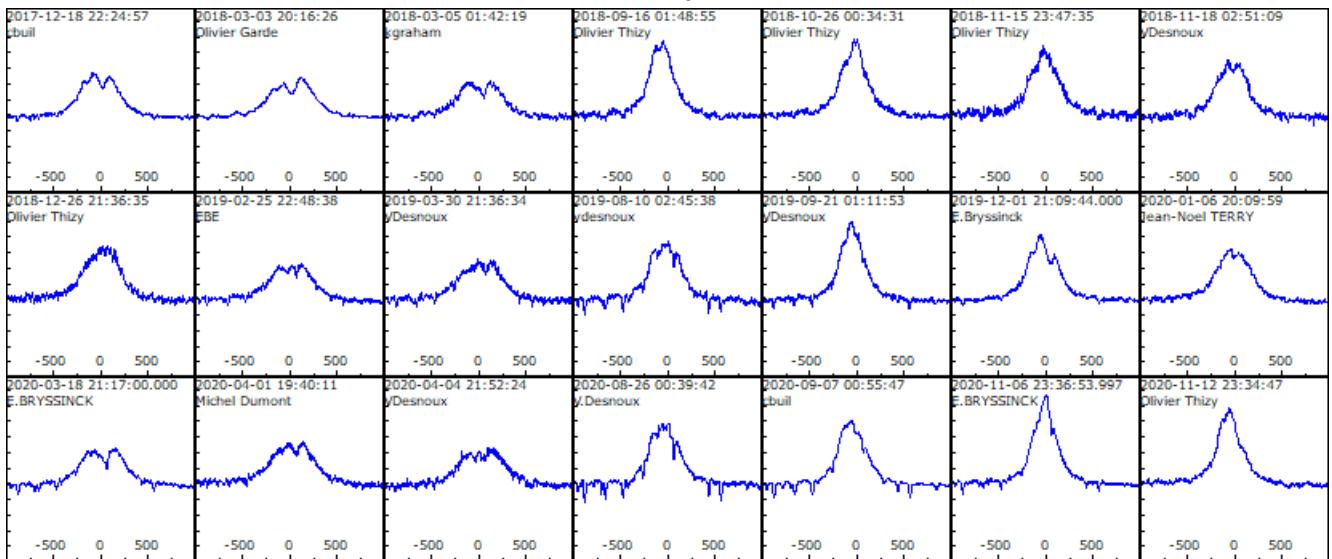
V532 Lyr



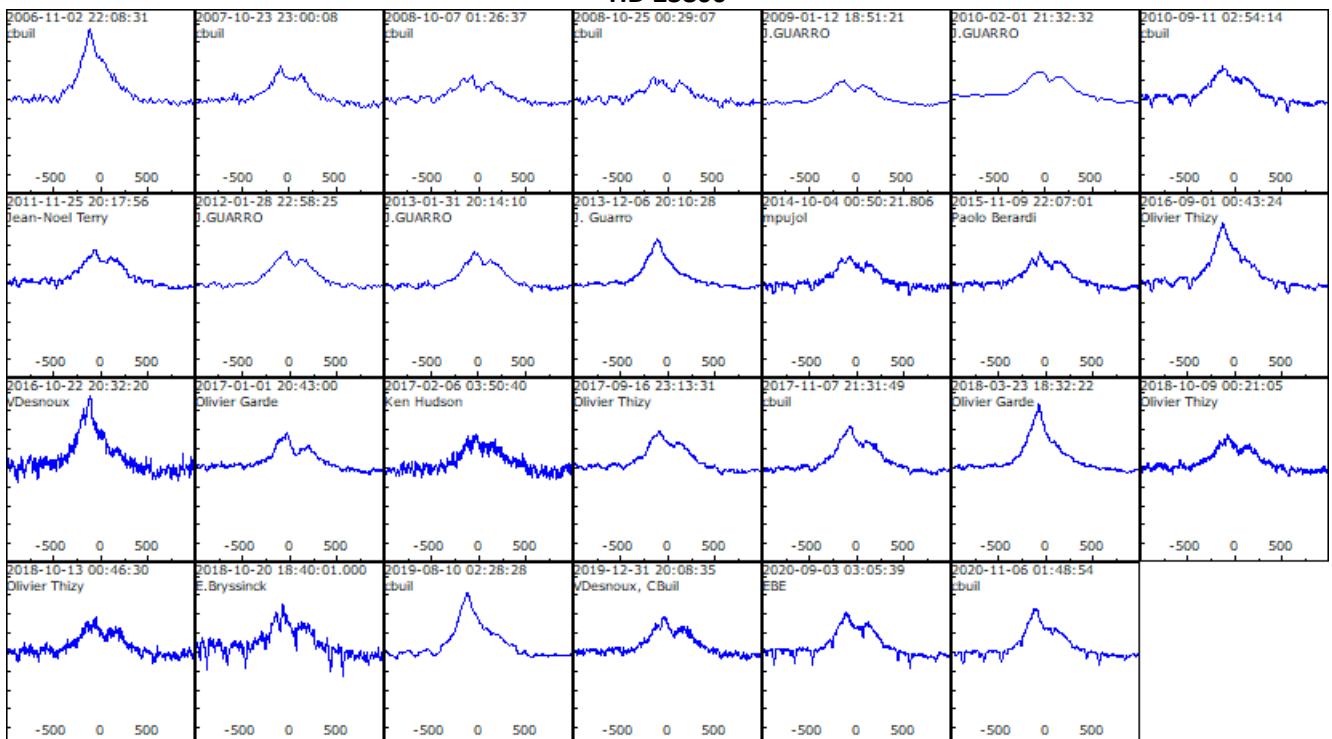
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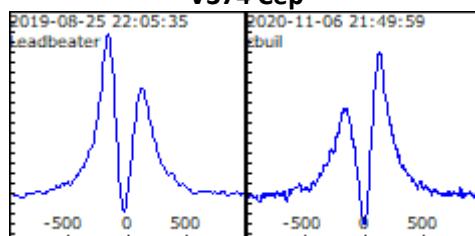
12 Aur



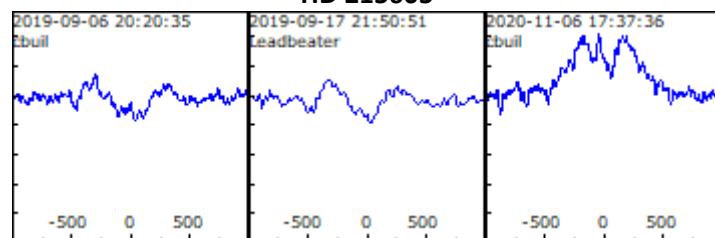
HD 23800



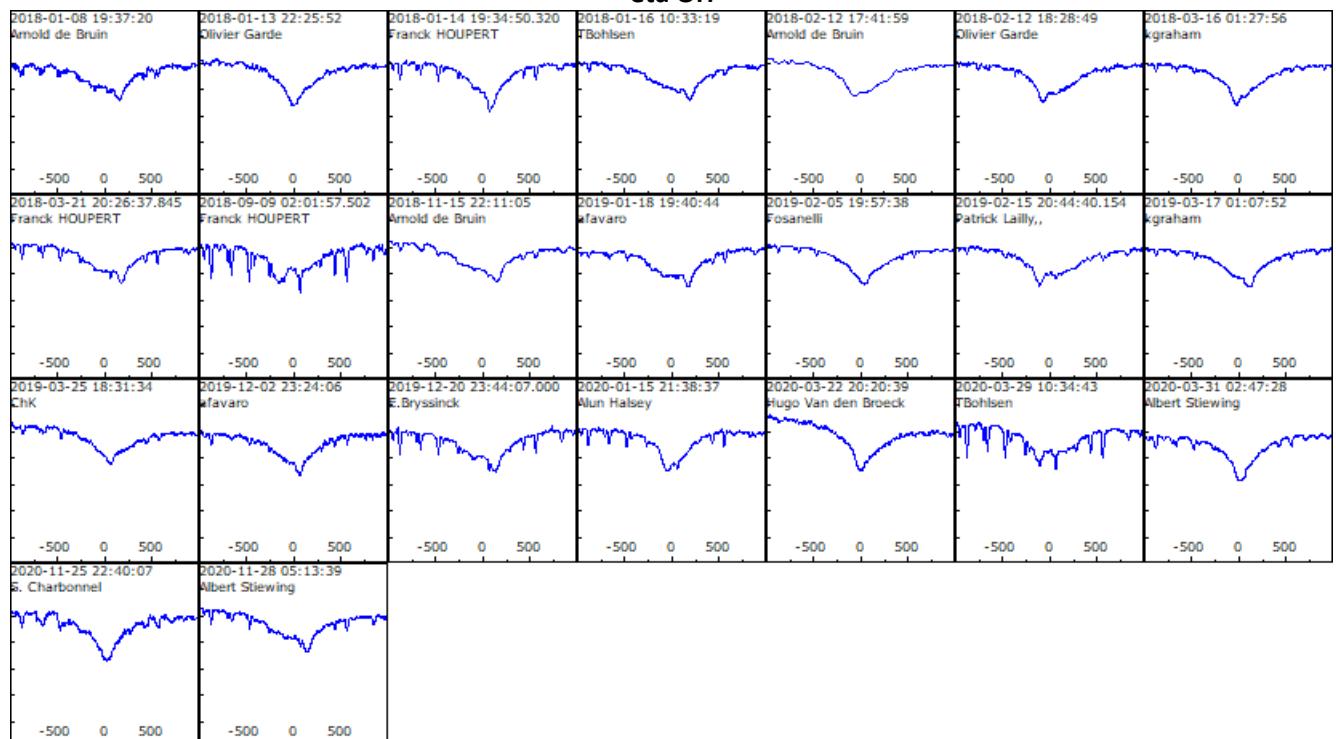
V374 Cep



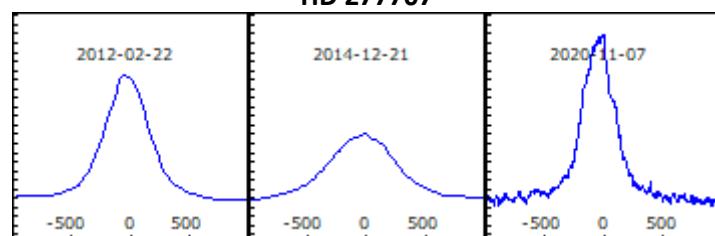
HD 215605



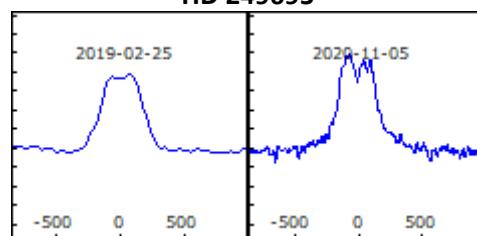
eta Ori



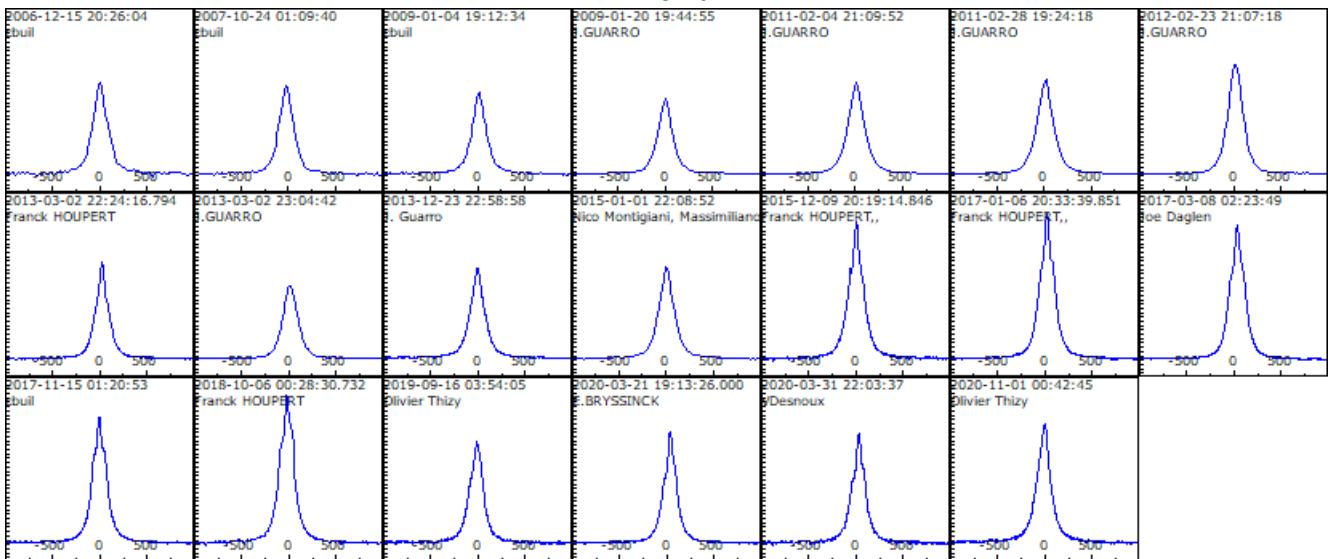
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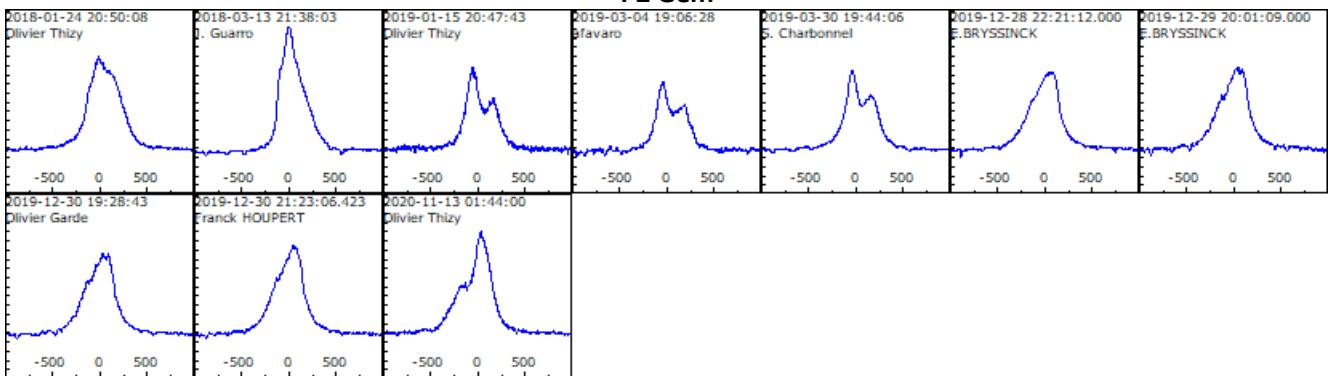
HD 249695



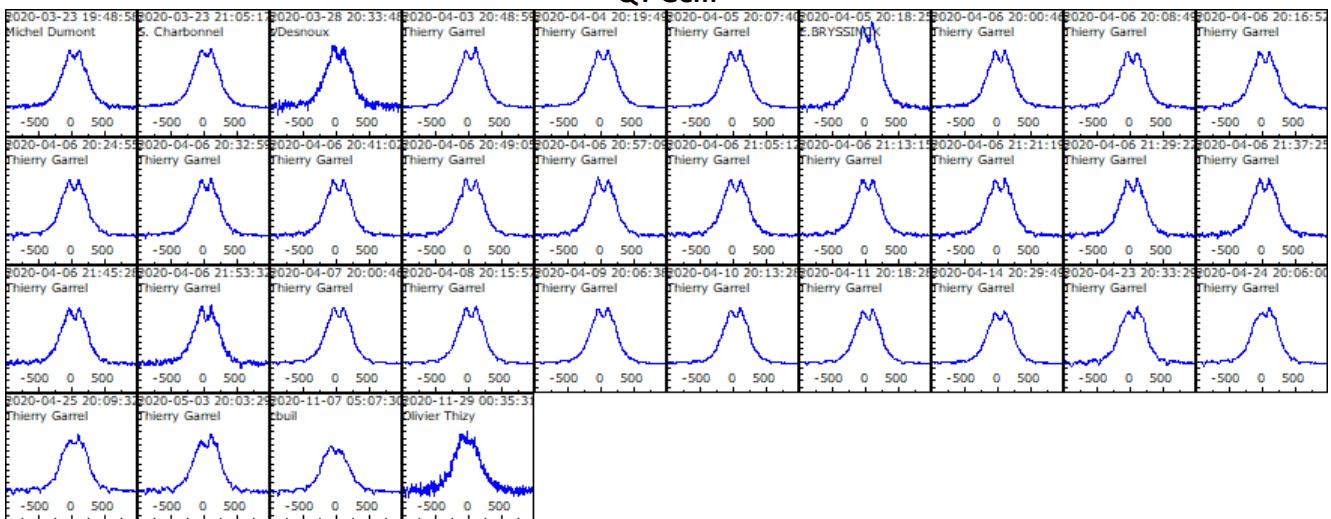
V416 Aur



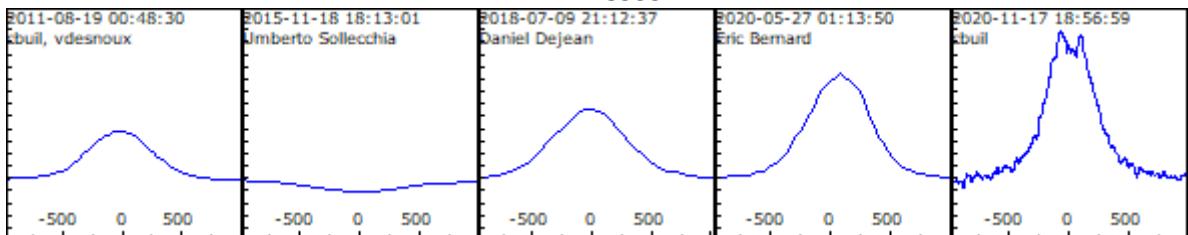
PZ Gem



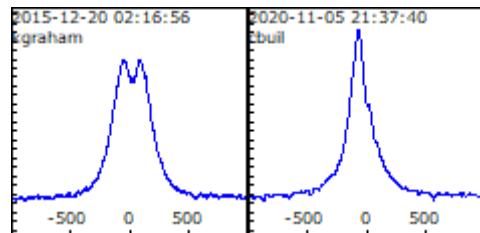
QY Gem



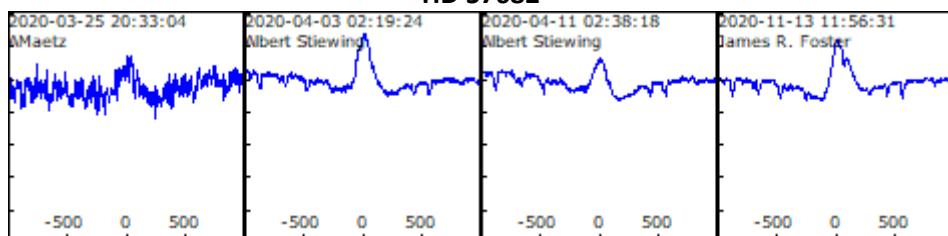
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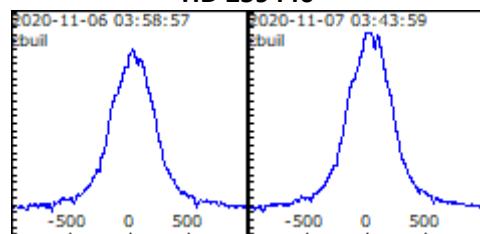
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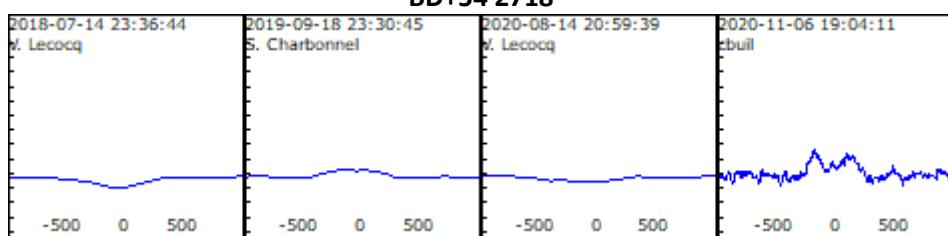
HD 57682



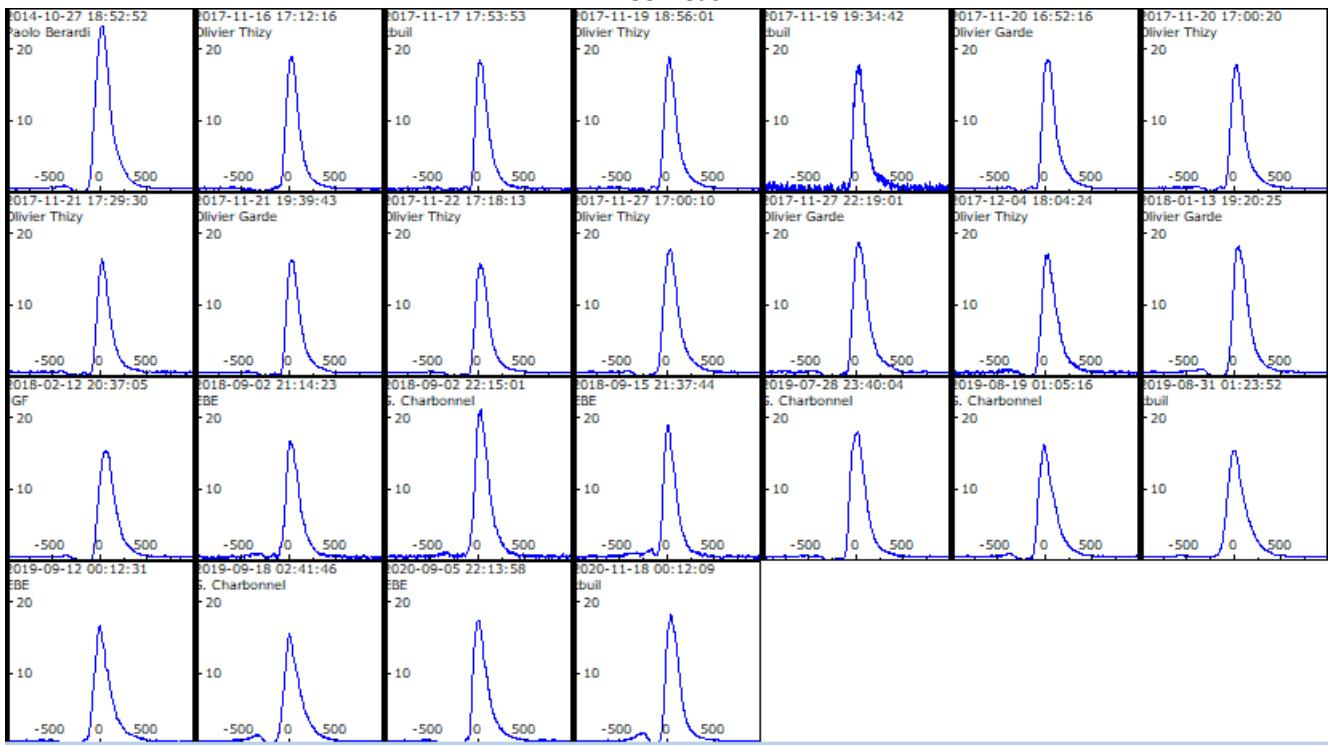
HD 259440



BD+54 2718

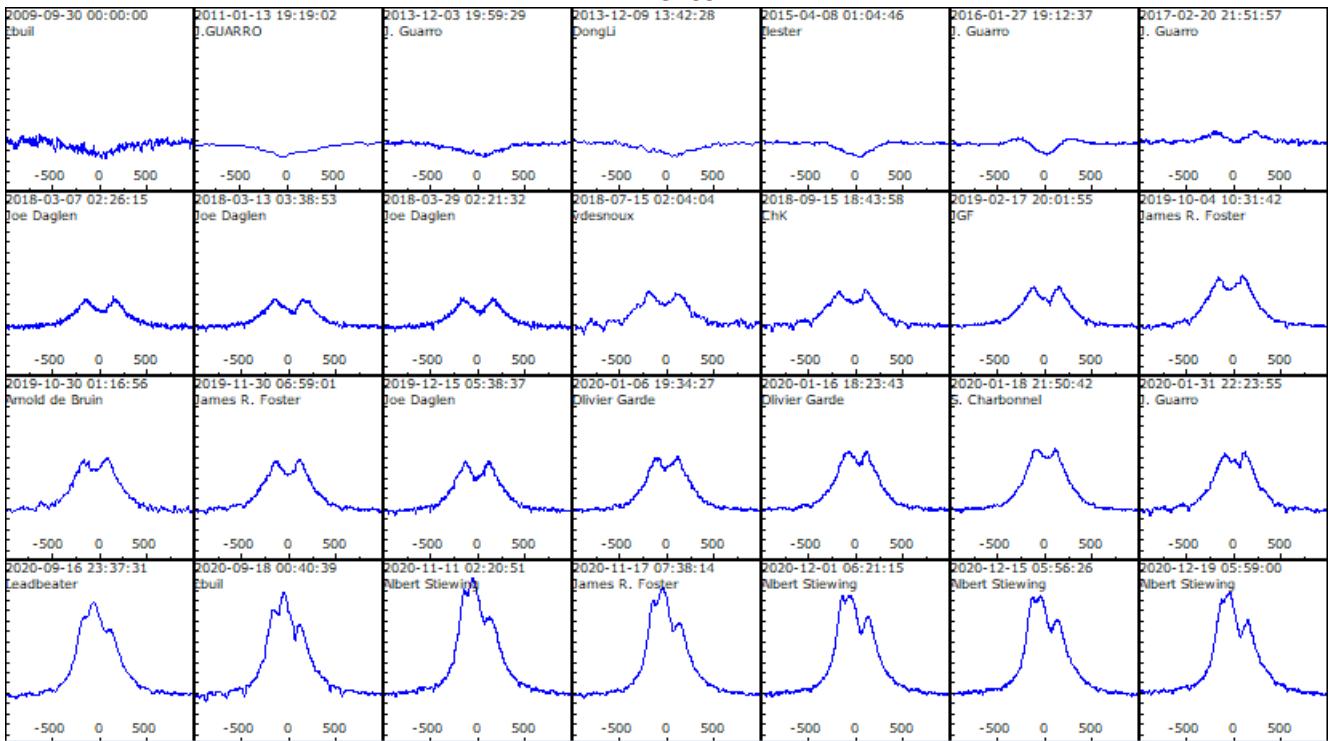


V594 Cas

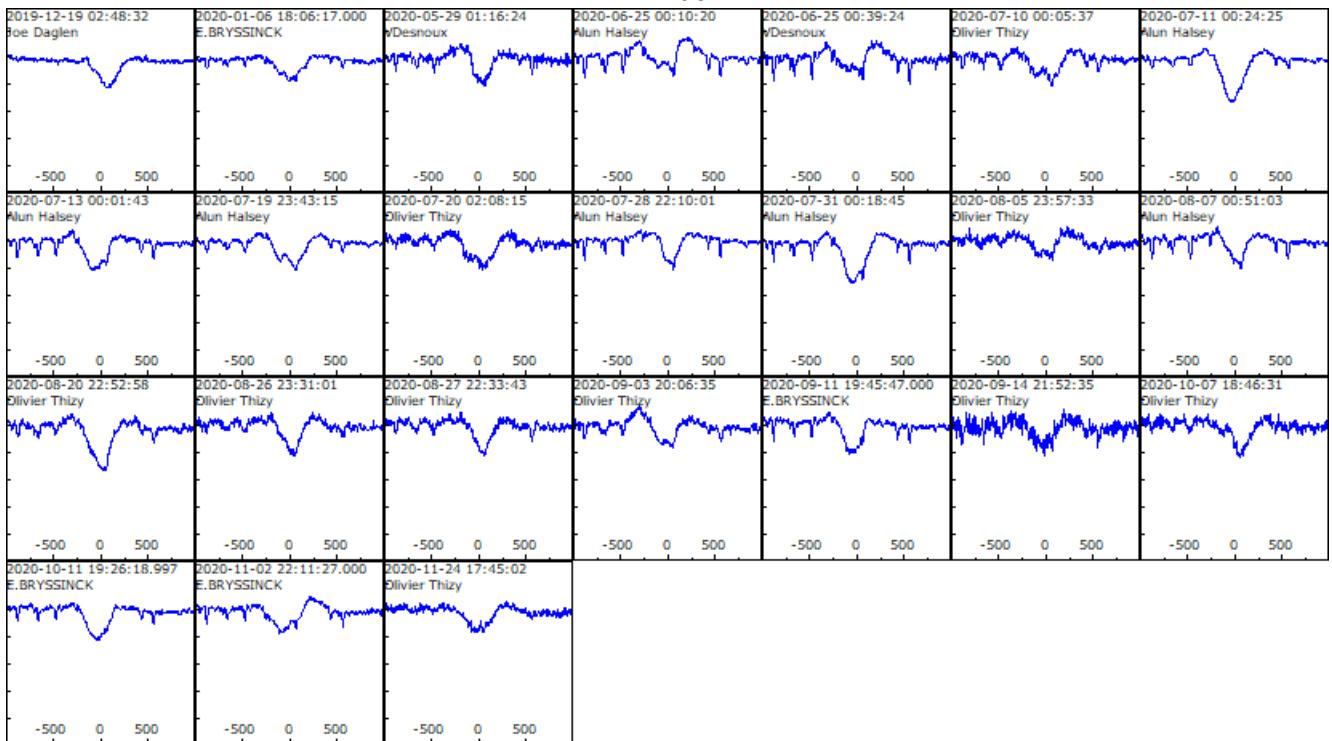


Moderate evolution of H-alpha line

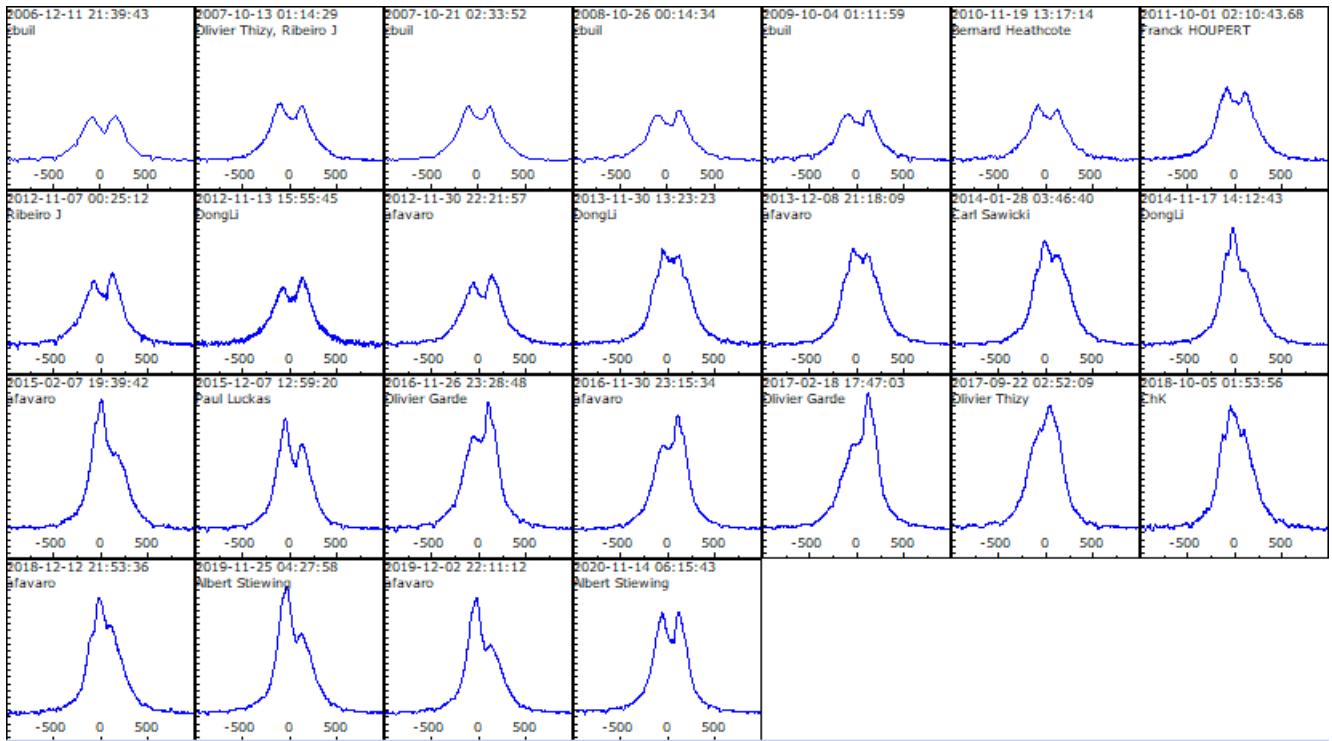
HD 237091



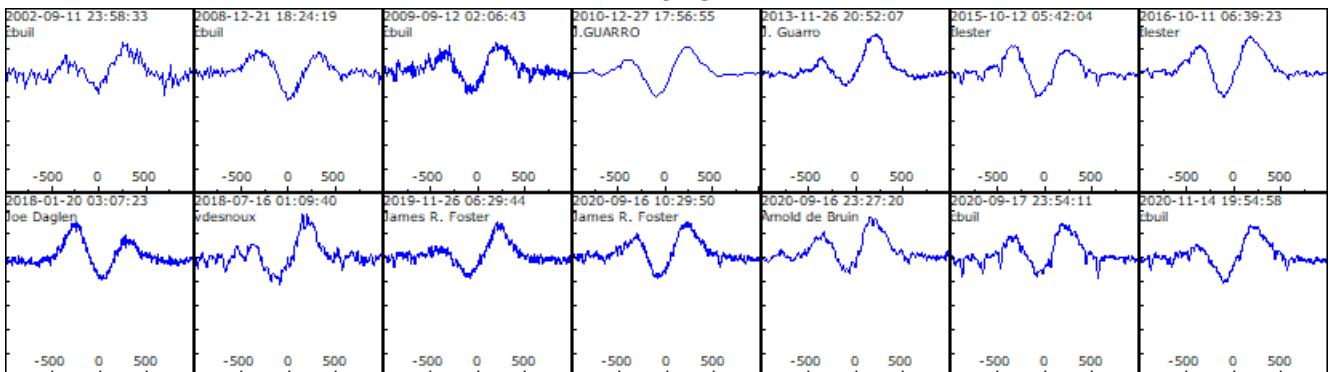
14 Lac



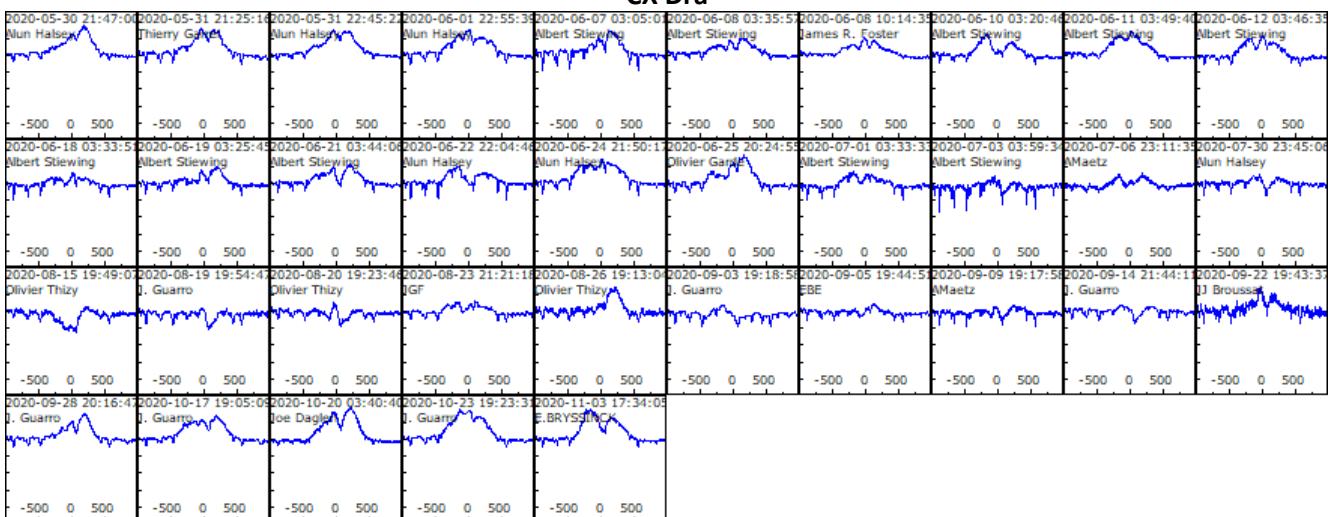
228 Eri



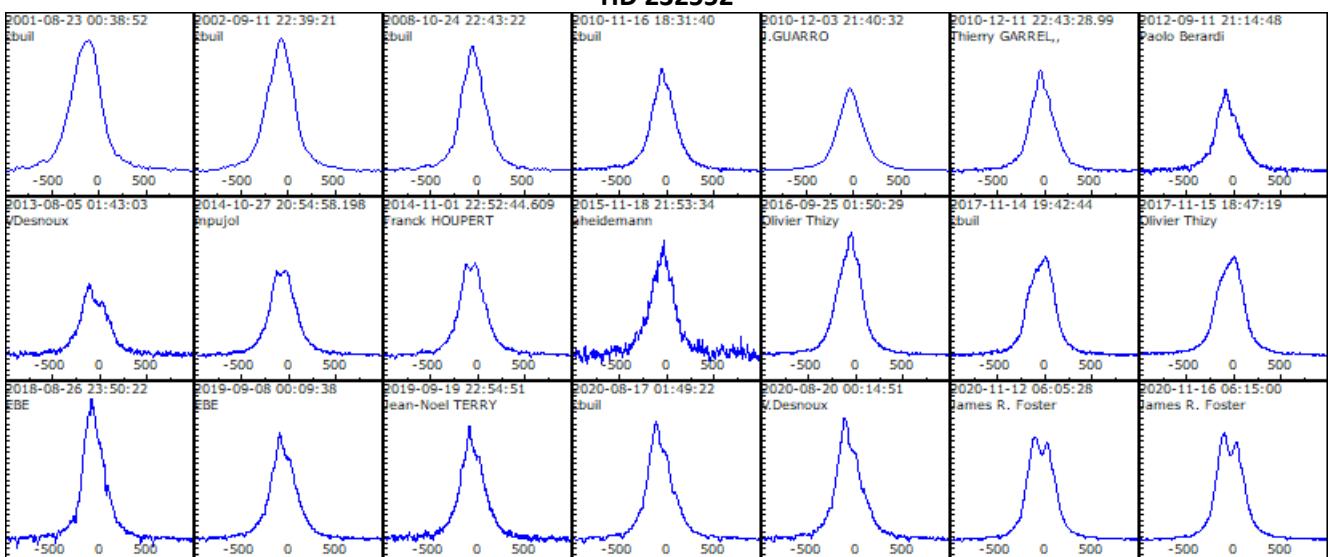
V473 Per



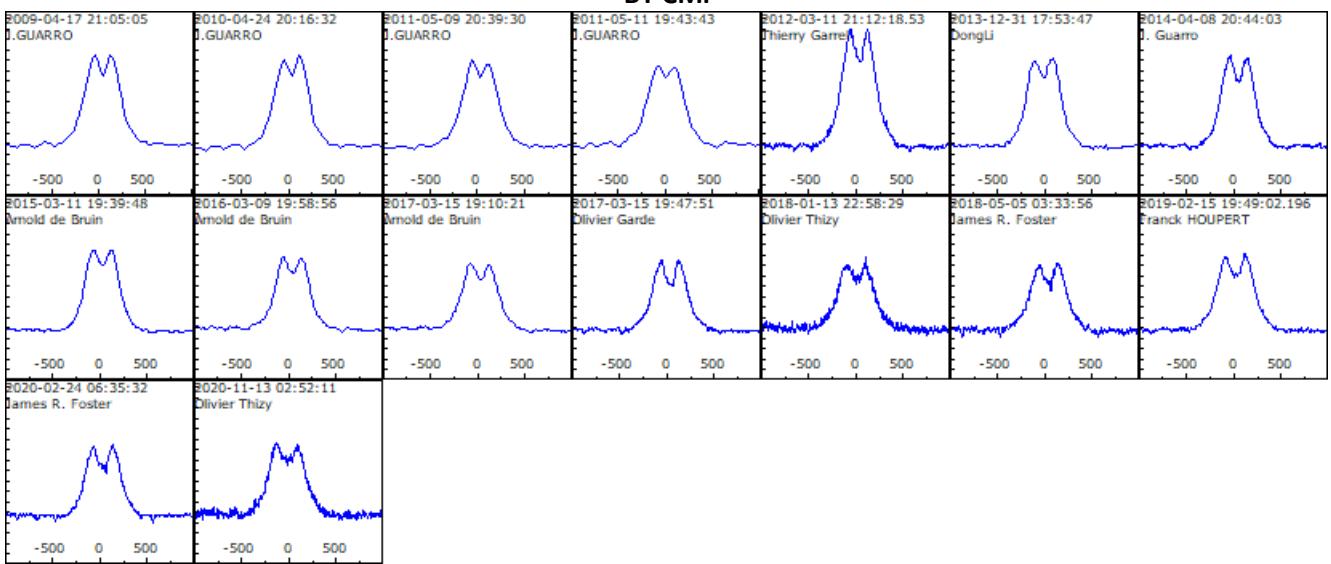
CX Dra



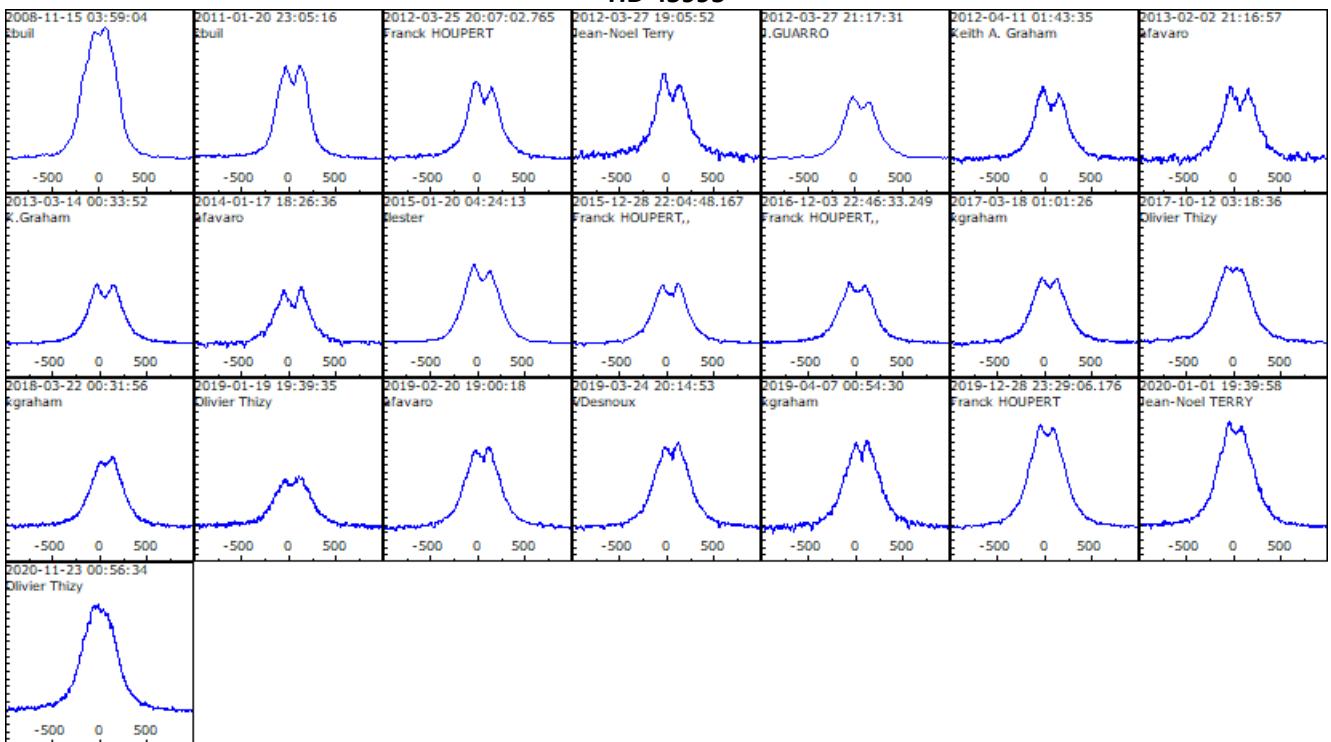
HD 232552



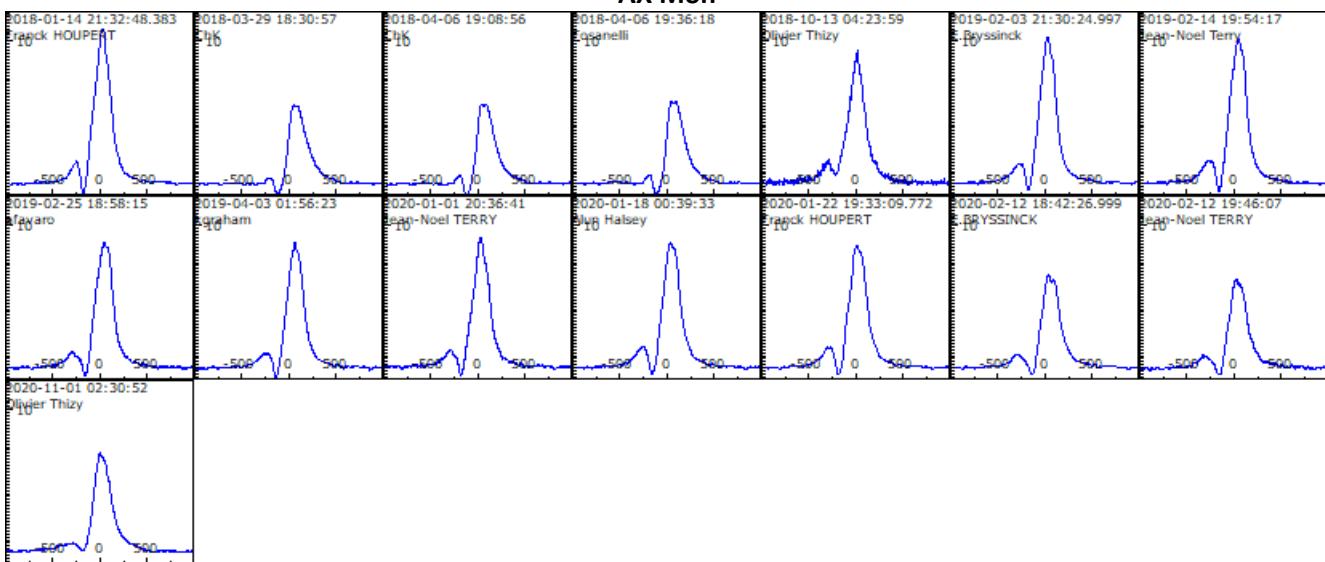
BT CMi



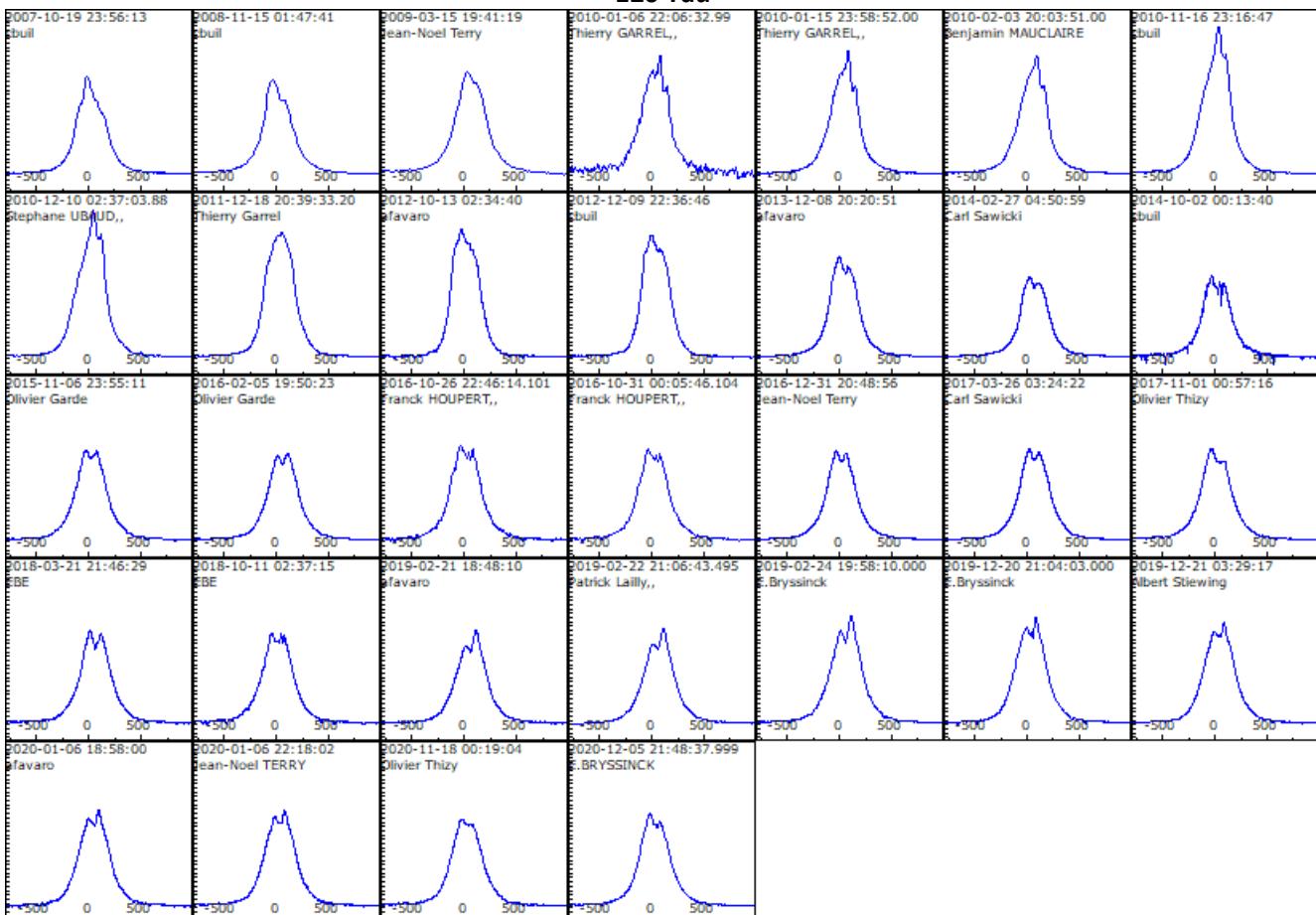
HD 45995



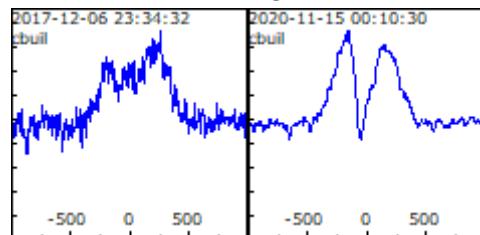
AX Mon



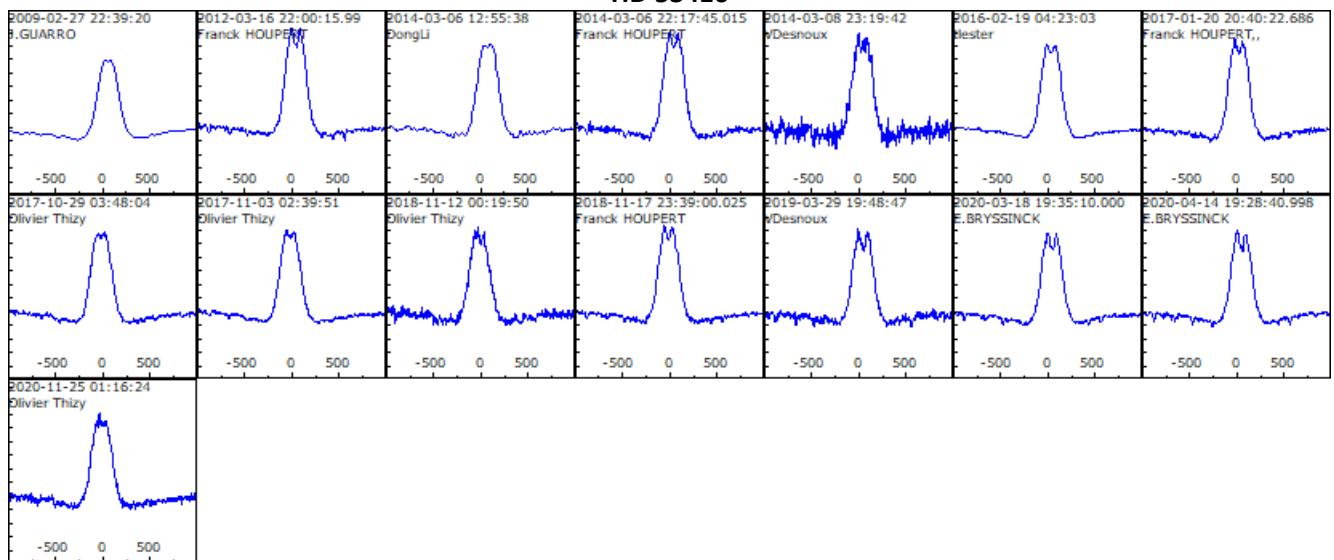
120 Tau



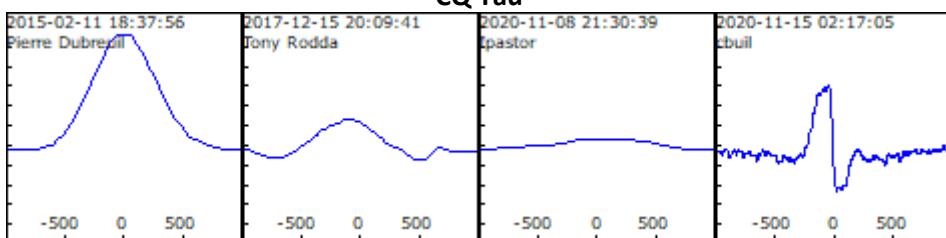
RW Per



HD 53416

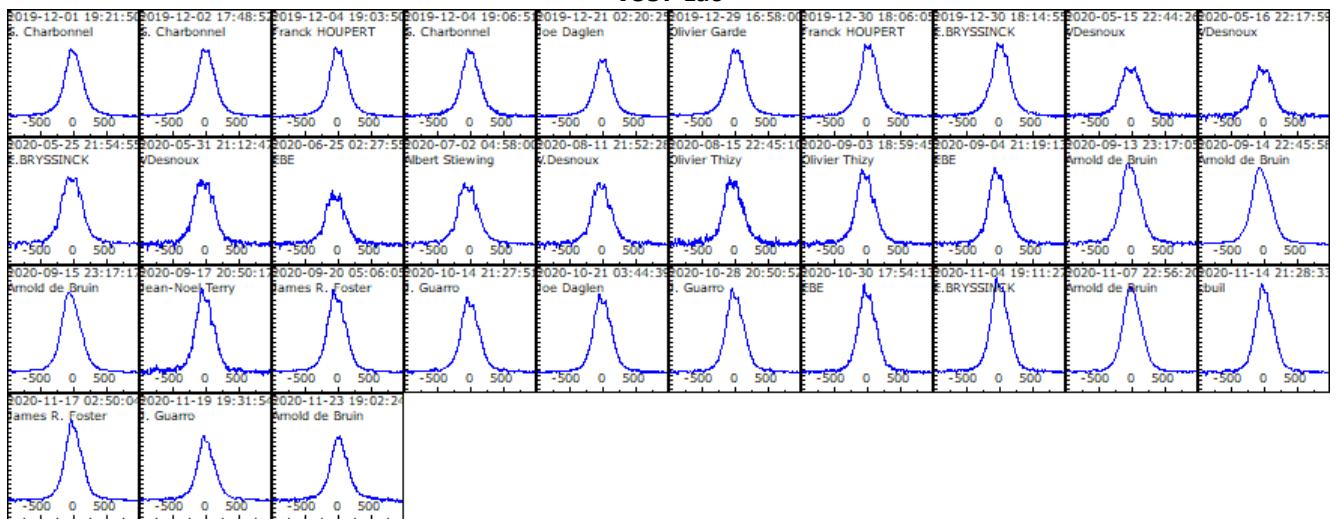


CQ Tau

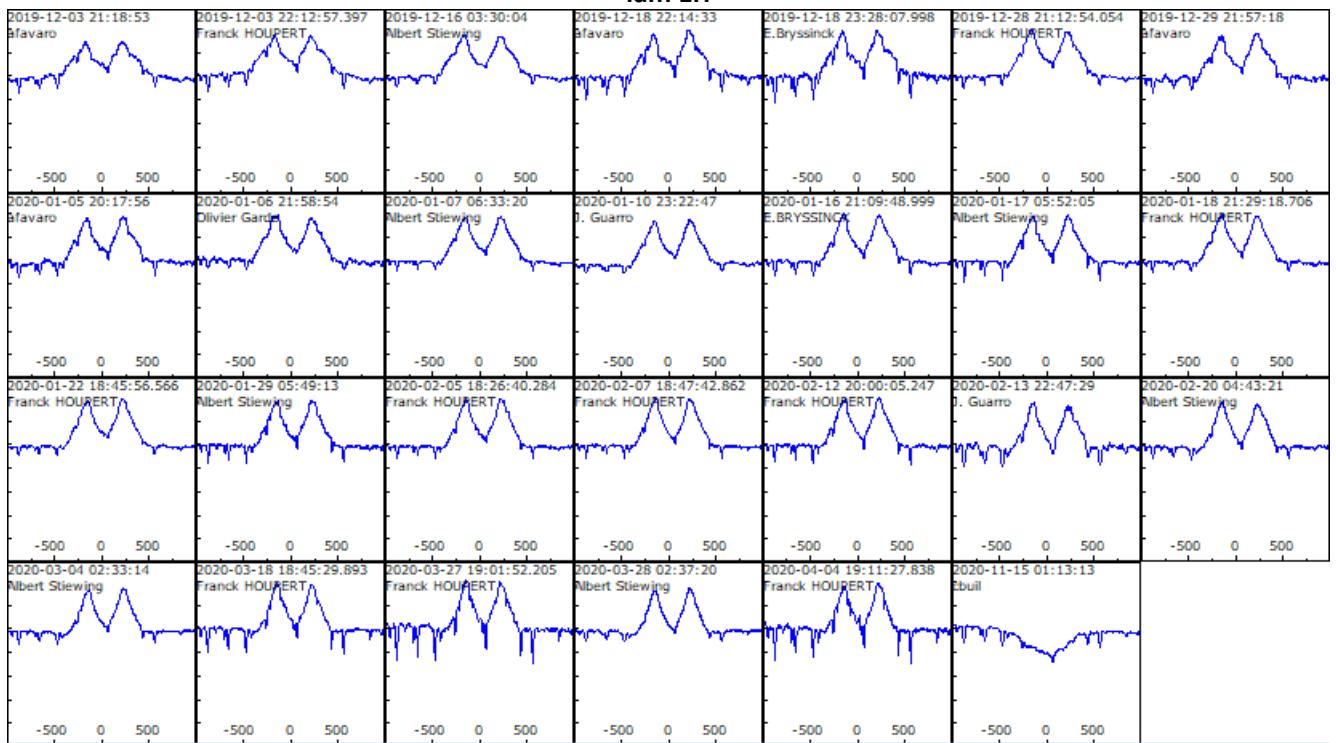


Emission decrease of H-alpha line

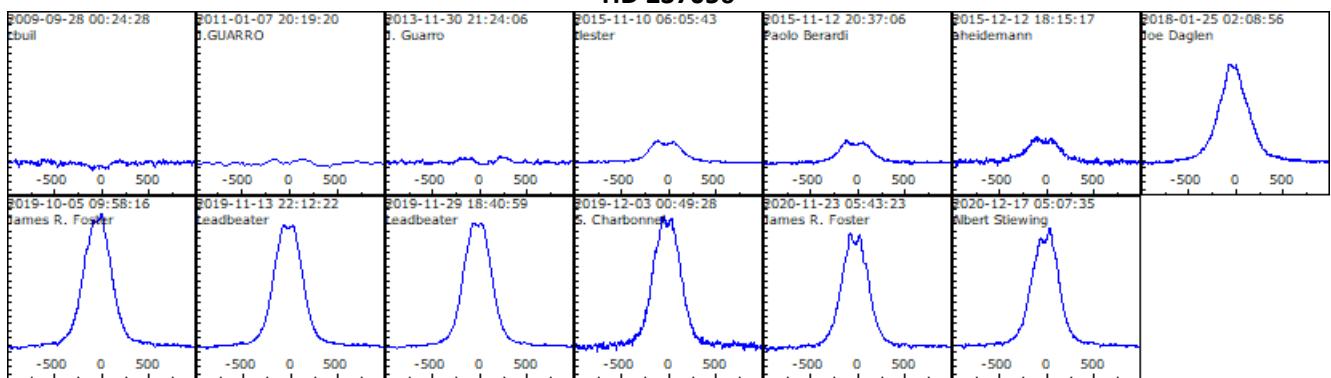
V357 Lac



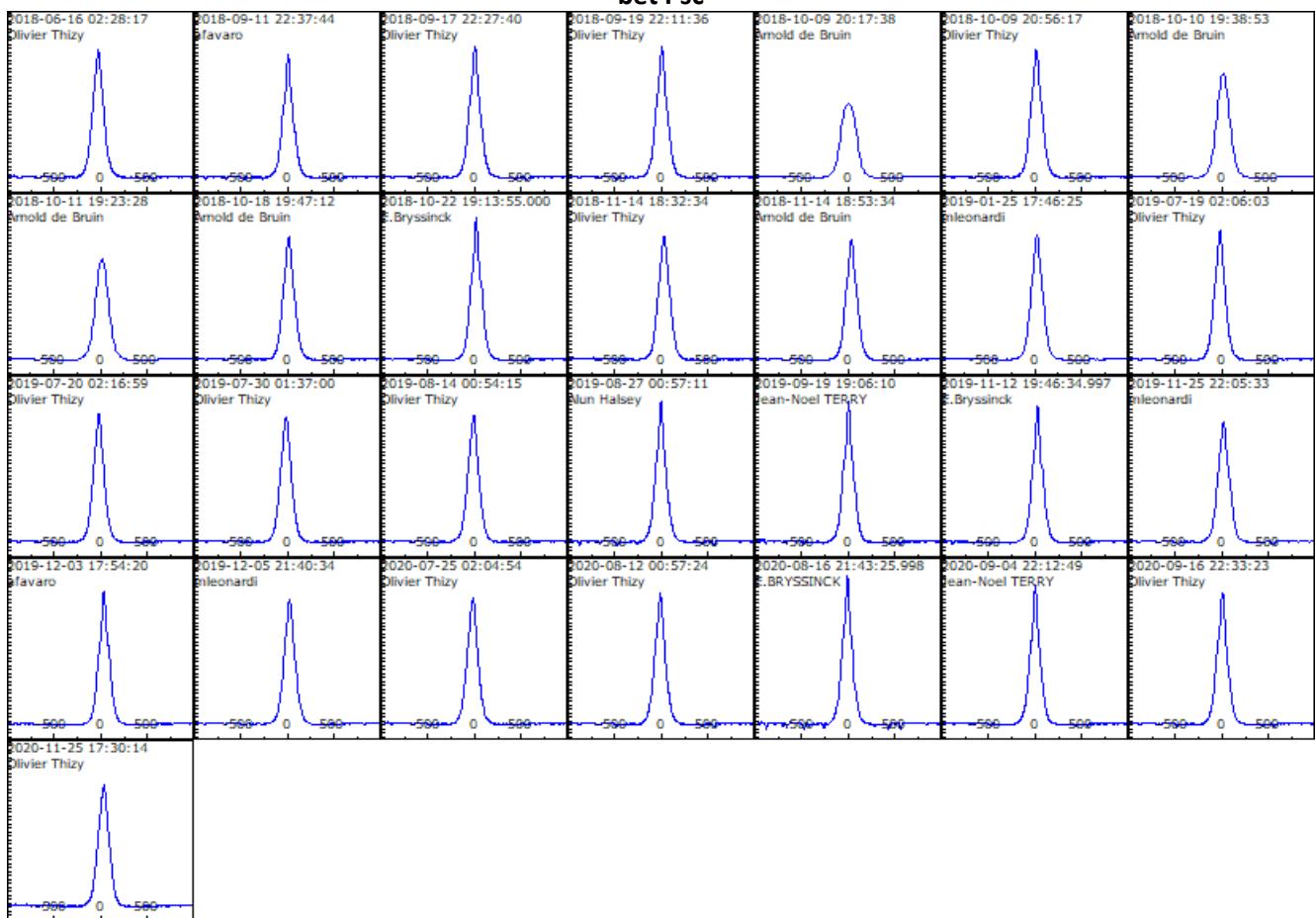
Iam Eri



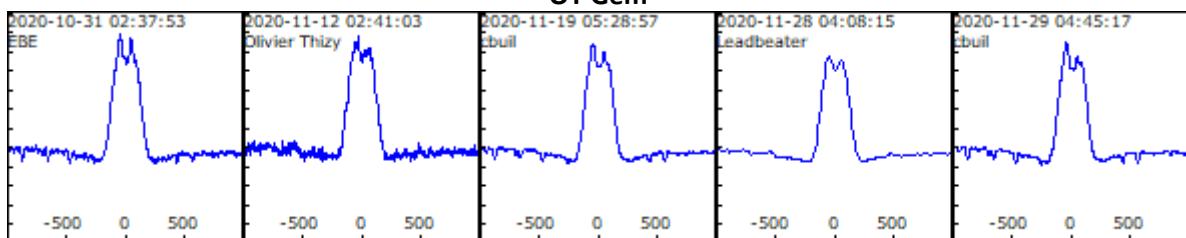
HD 237056



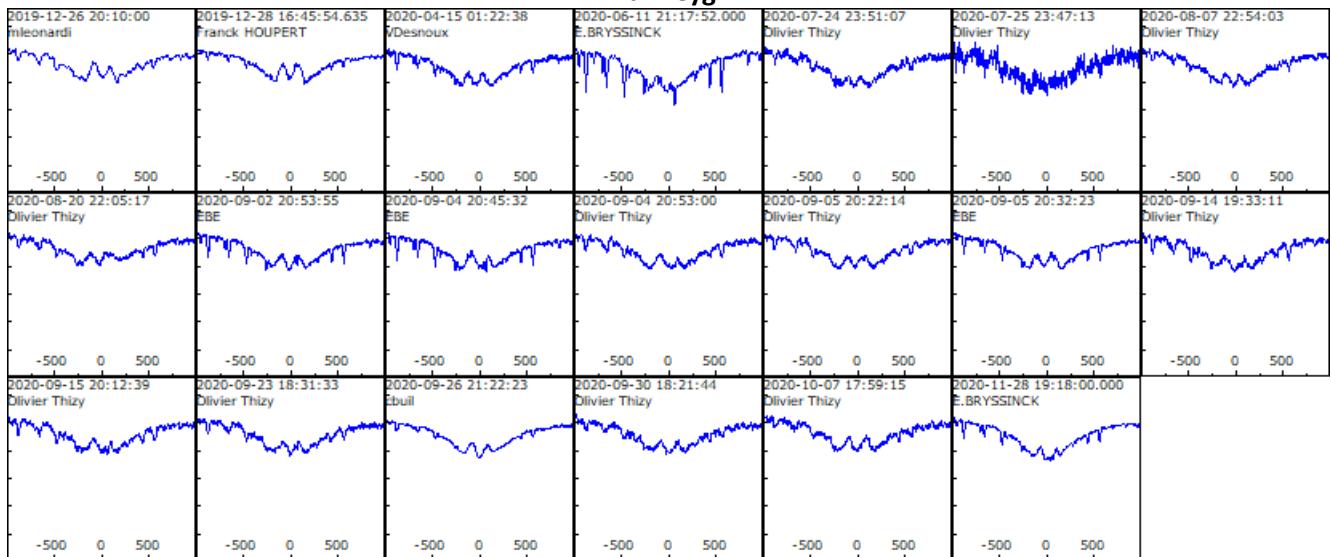
bet Psc



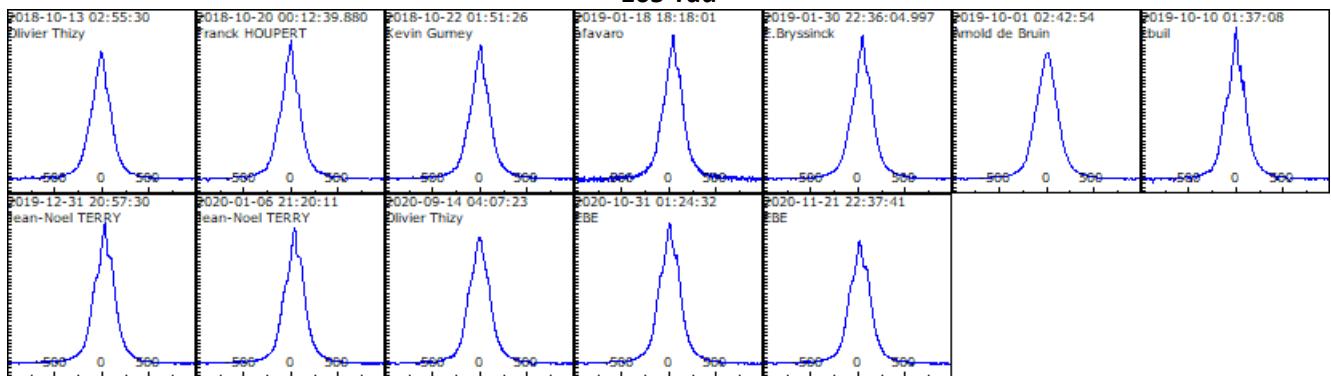
OT Gem



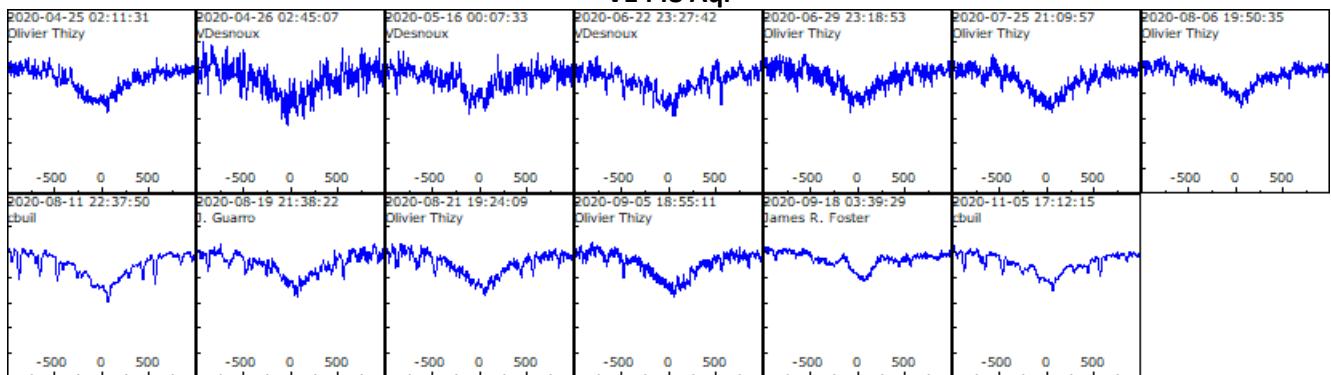
Iam Cyg



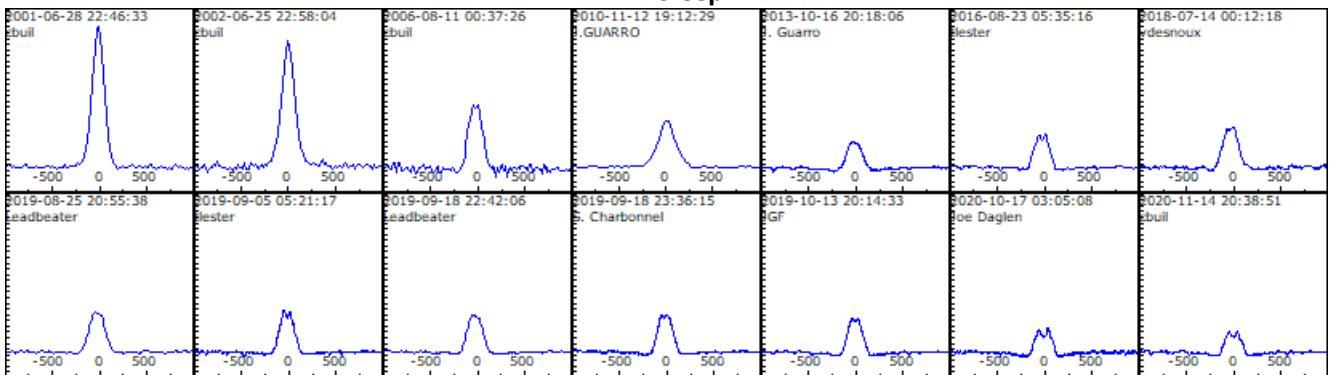
105 Tau



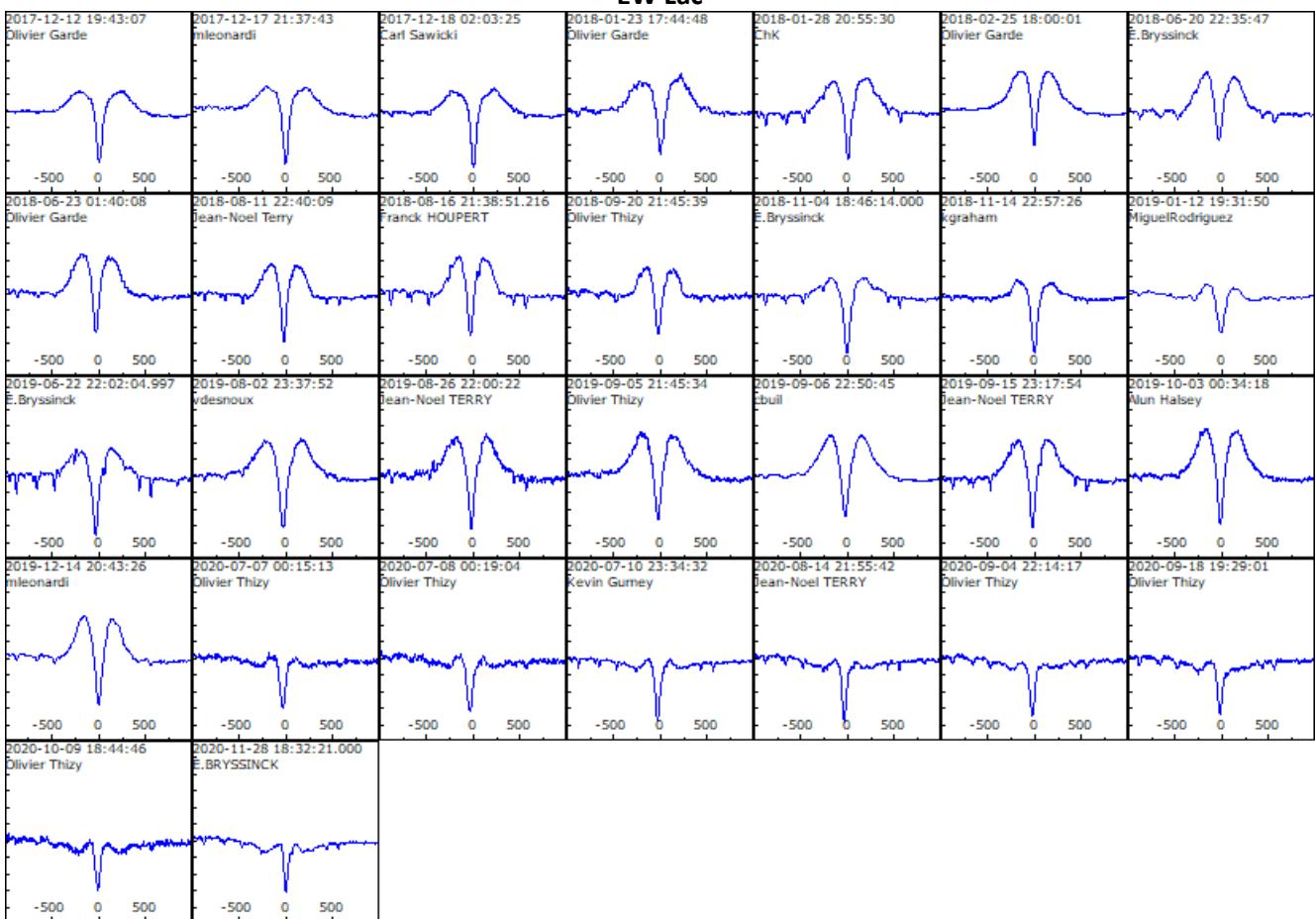
V1448 Aql



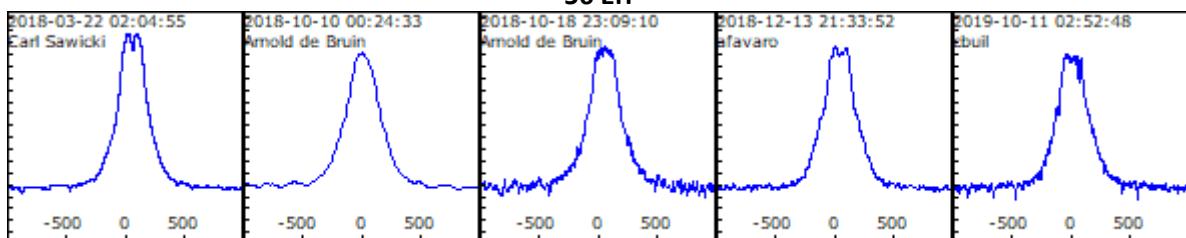
V420 Cep



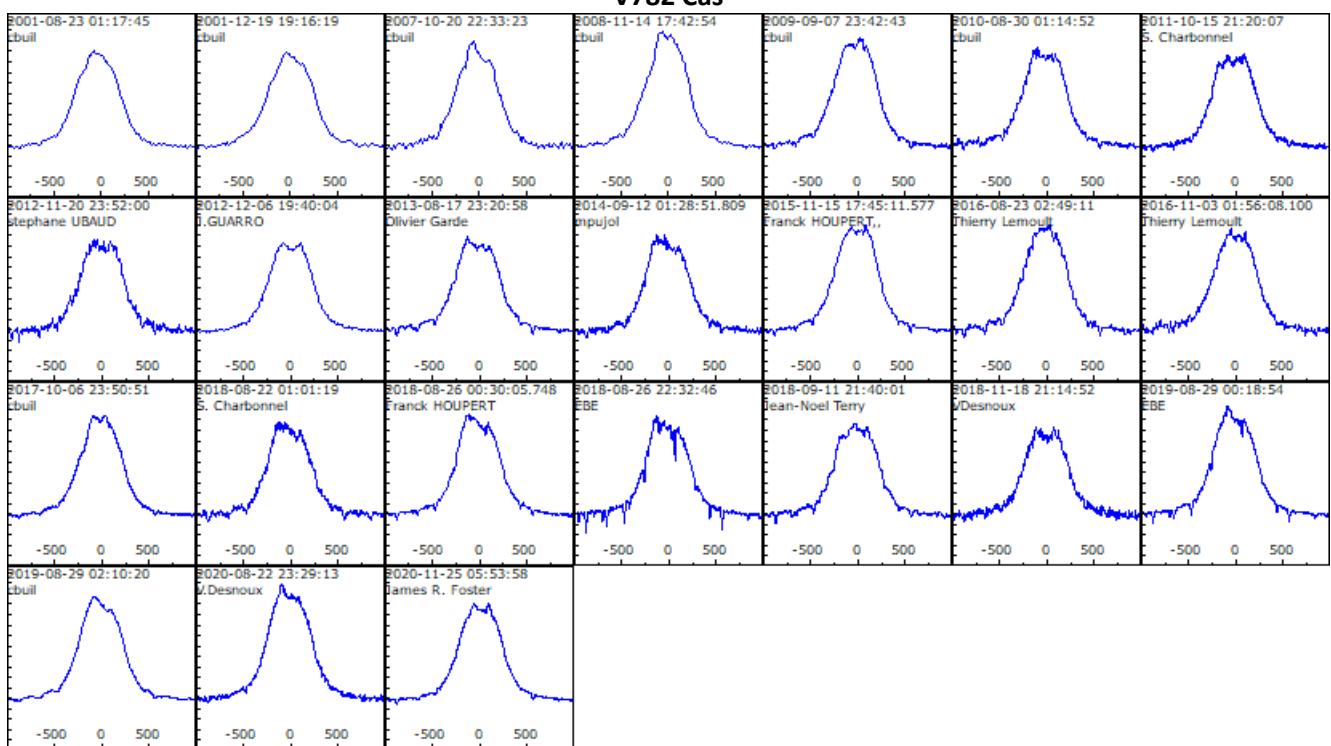
EW Lac



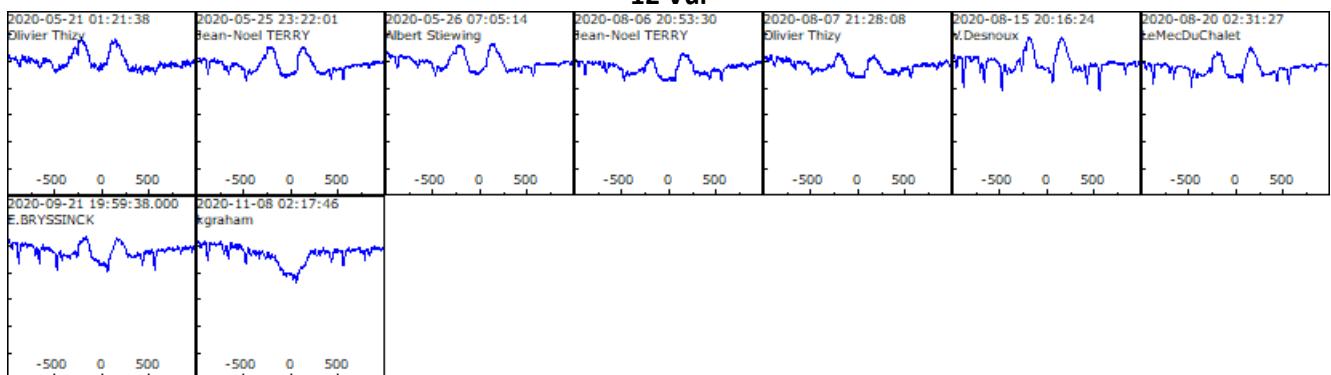
56 Eri



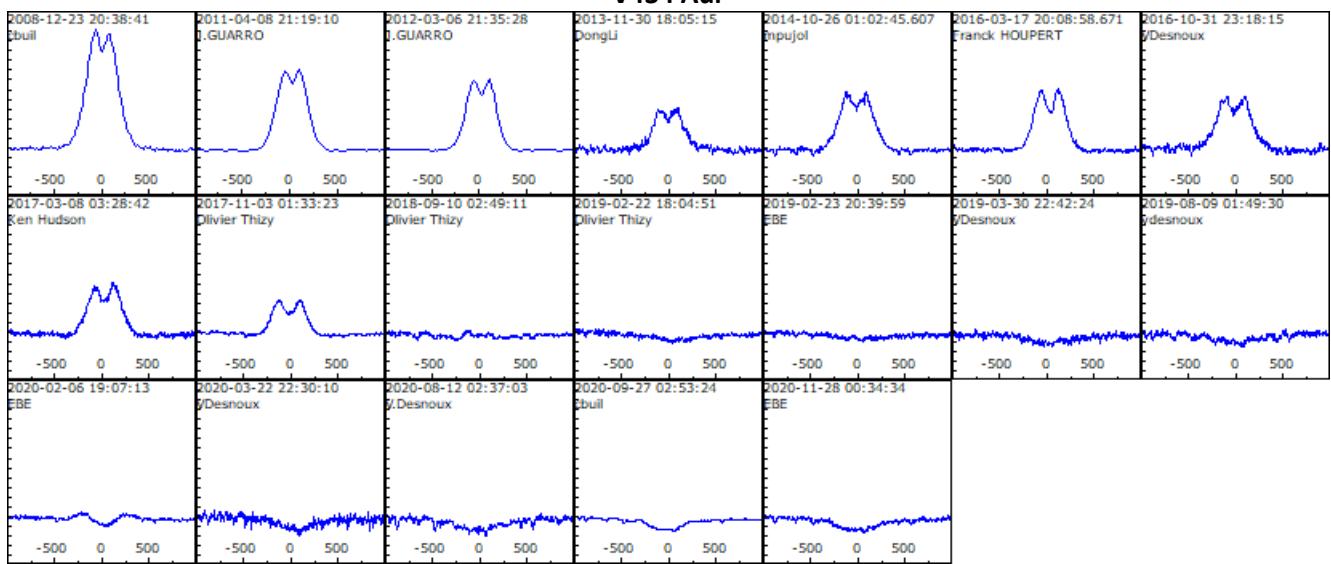
V782 Cas



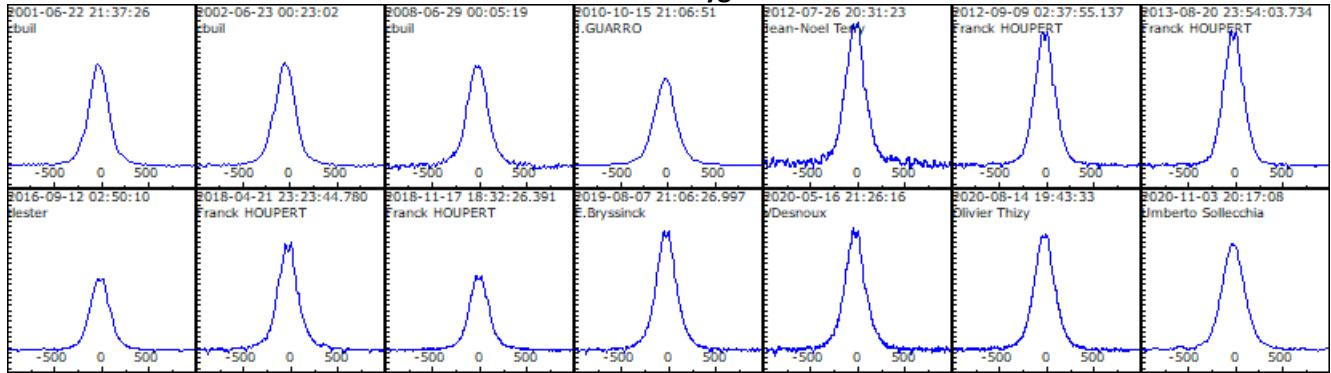
12 Vul



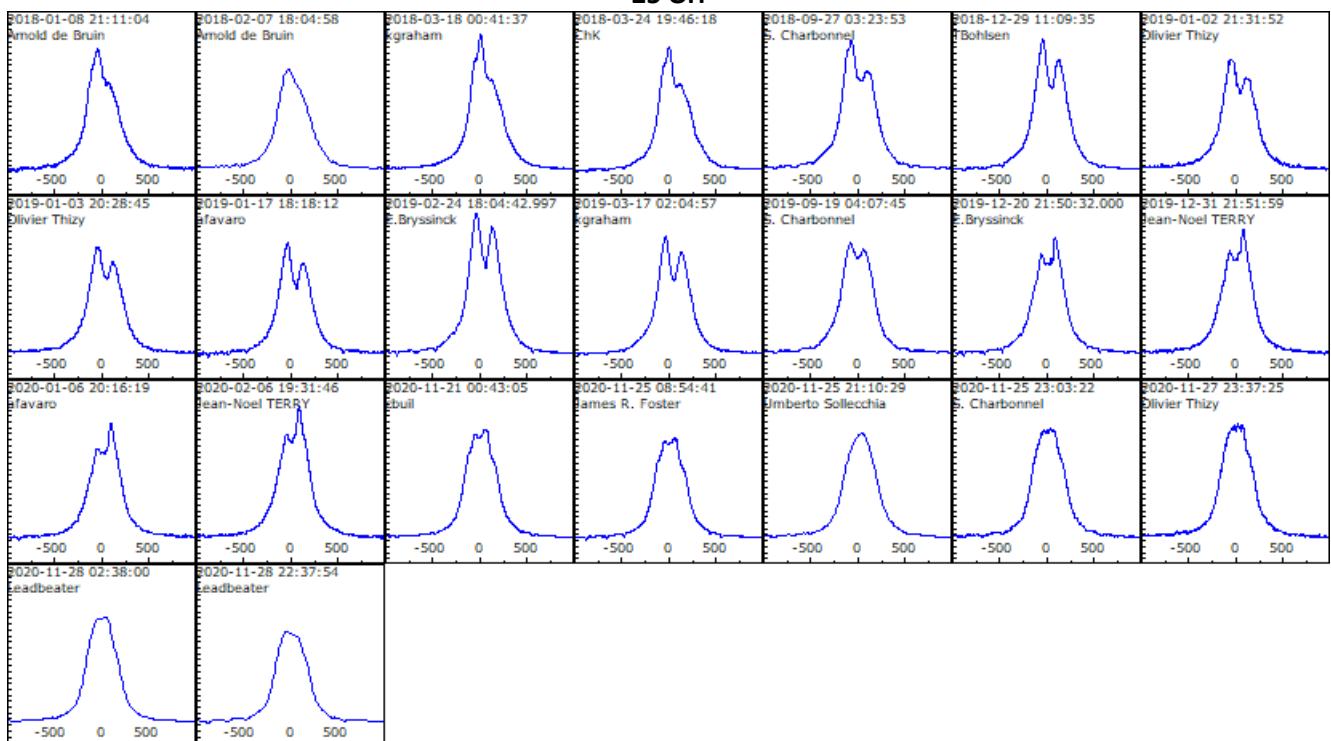
V434 Aur



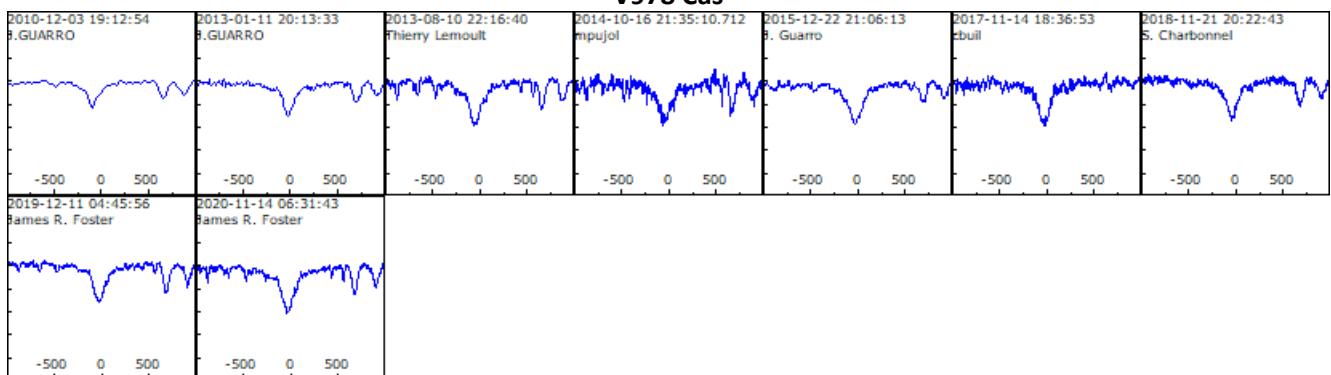
V2120 Cyg



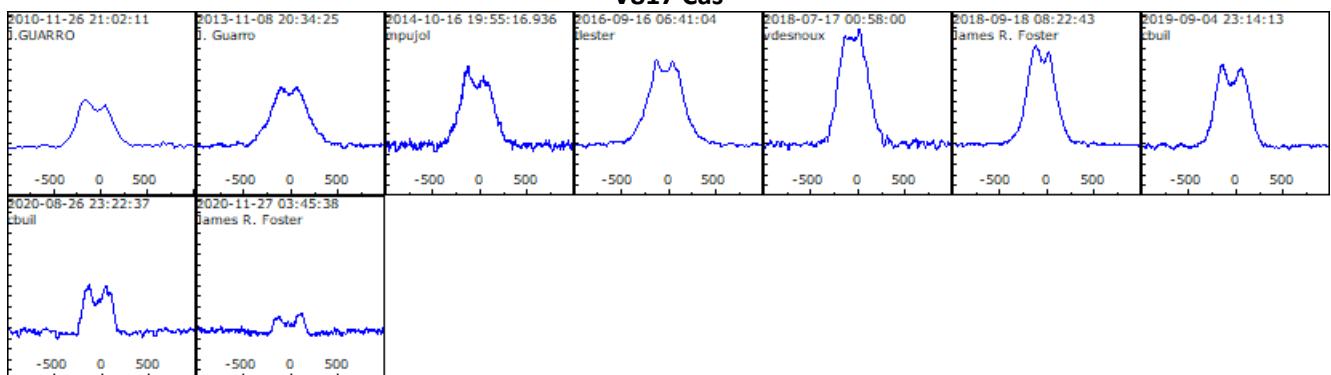
25 Ori



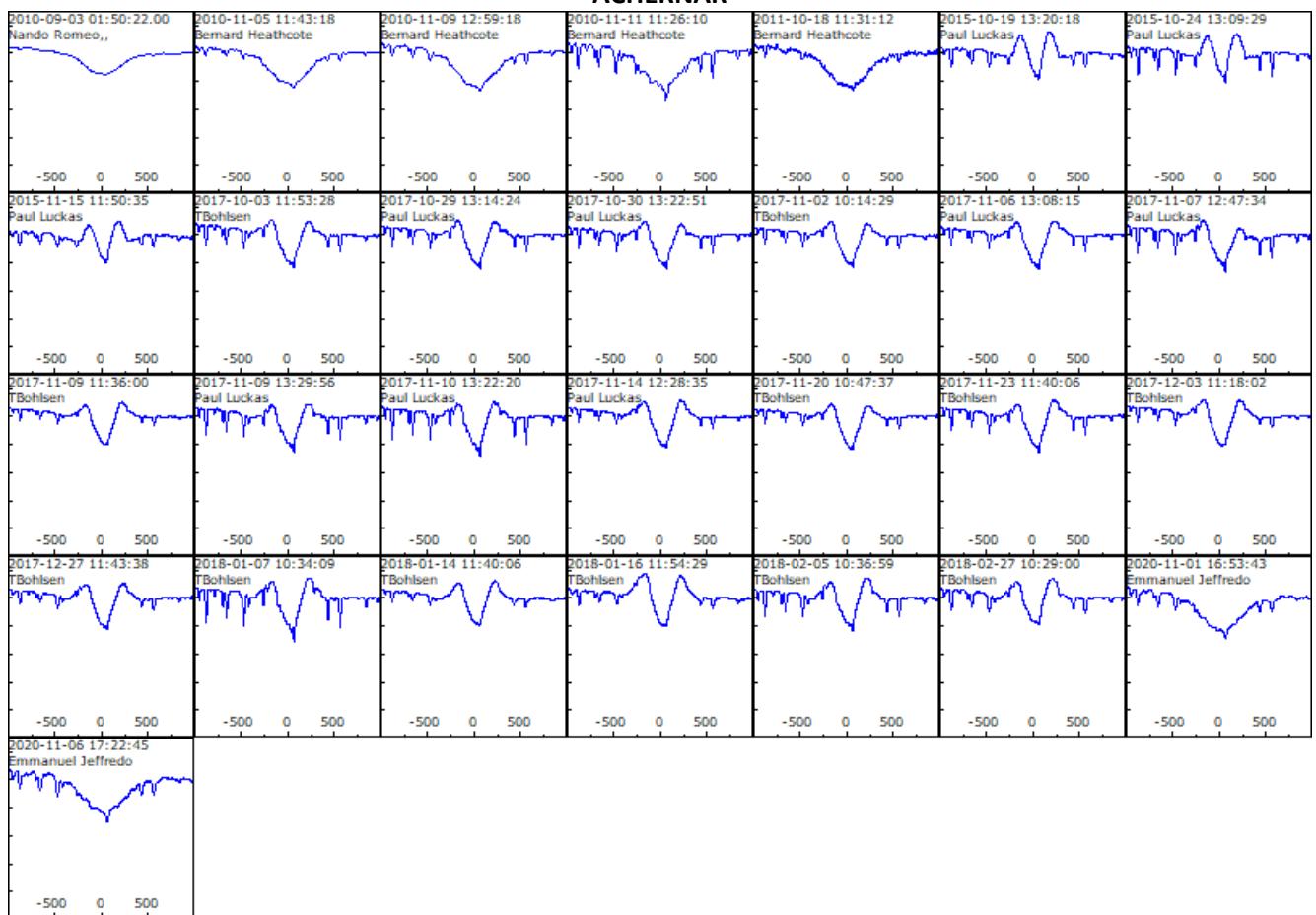
V978 Cas



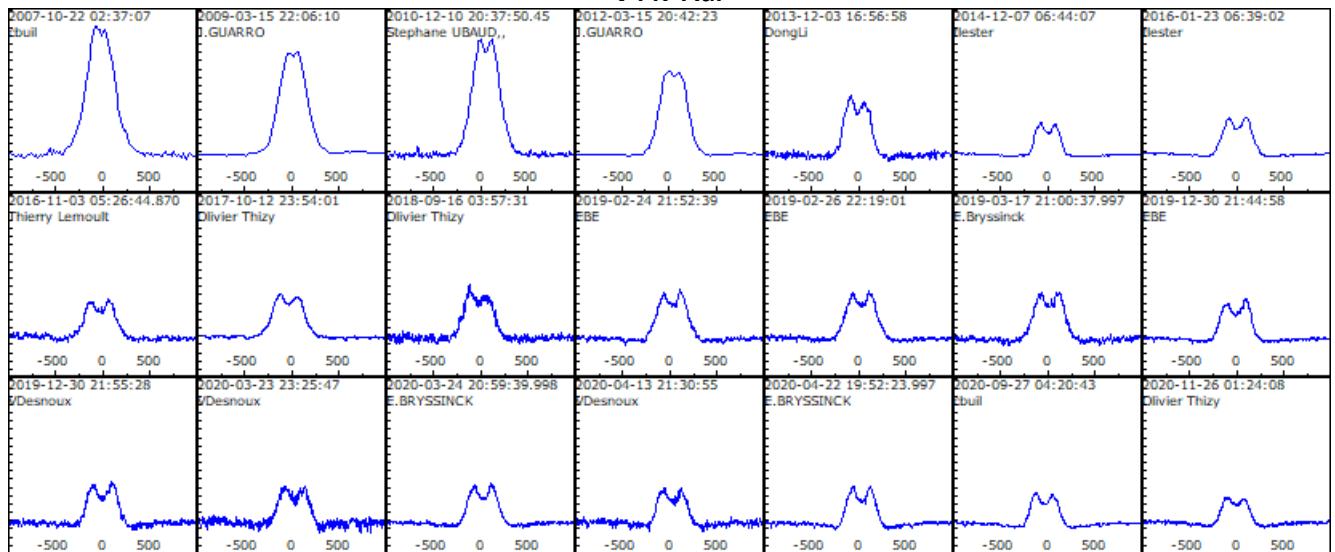
V817 Cas



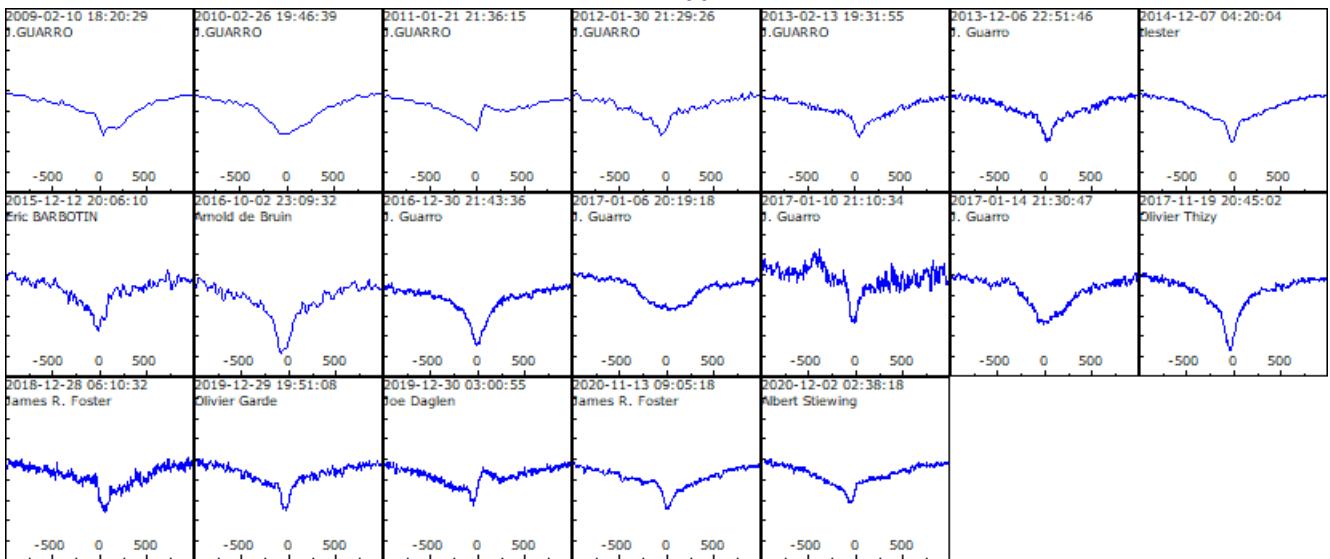
ACHERNAR



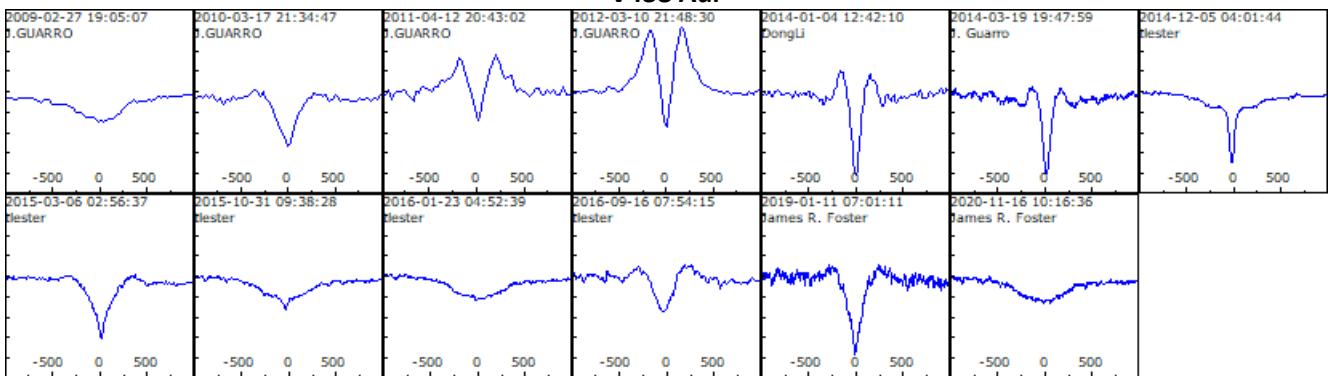
V447 Aur



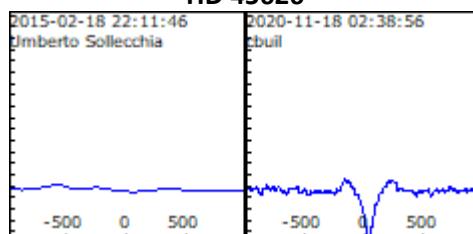
RW Tau



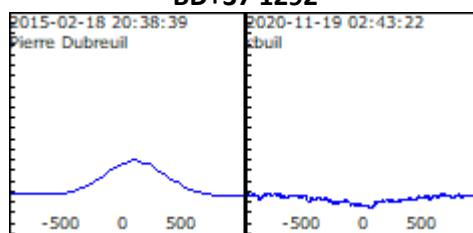
V438 Aur



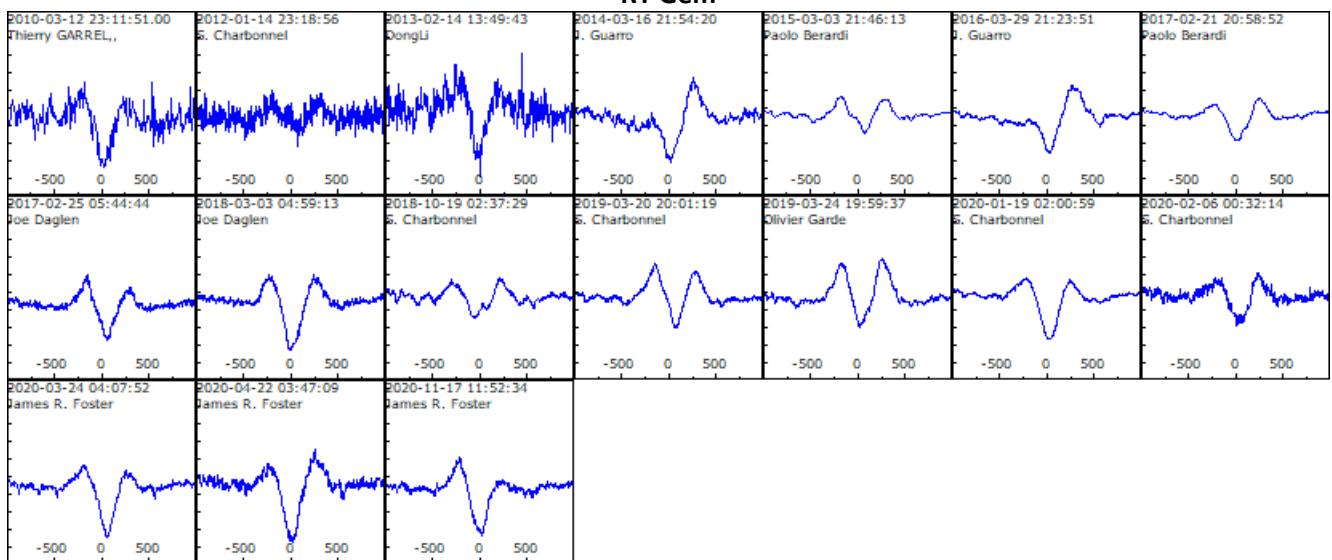
HD 45626



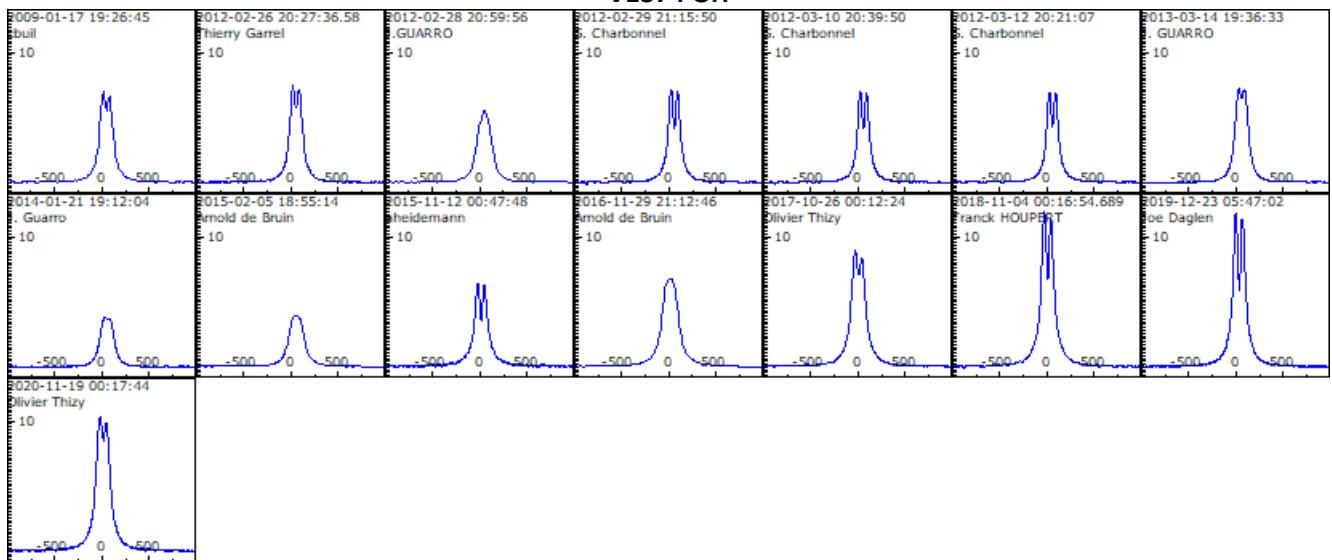
BD+37 1292



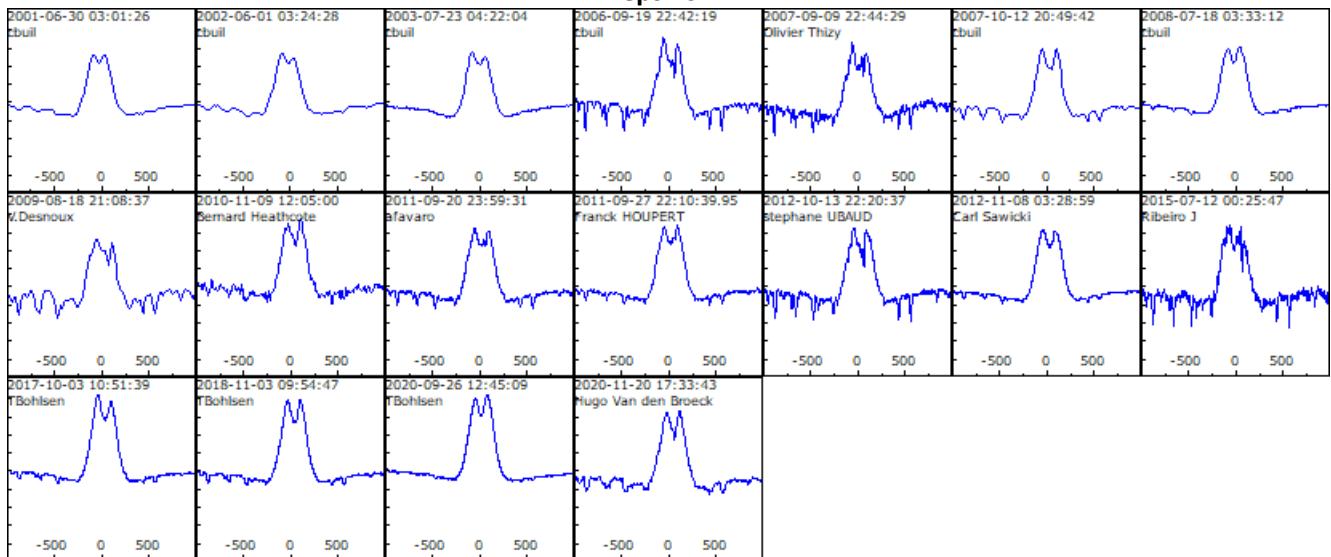
RY Gem



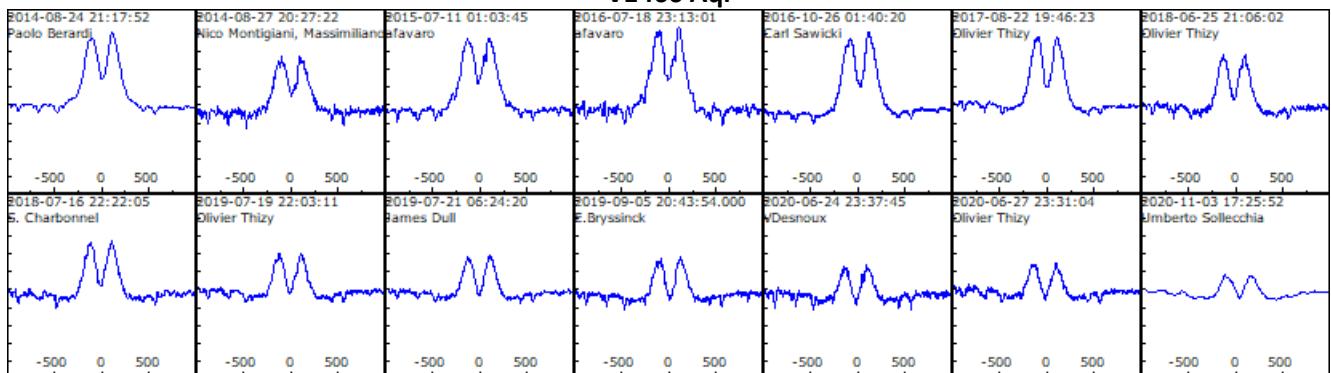
V1374 Ori



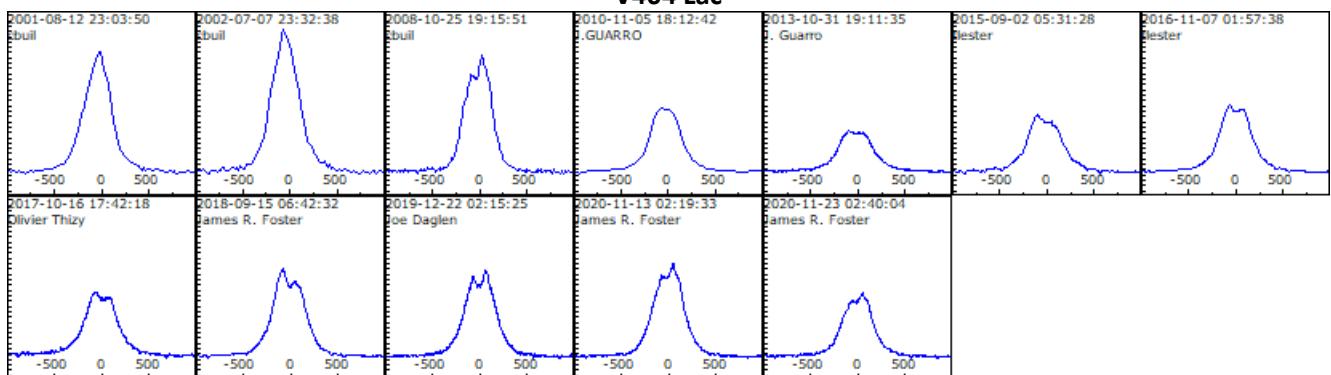
eps PsA



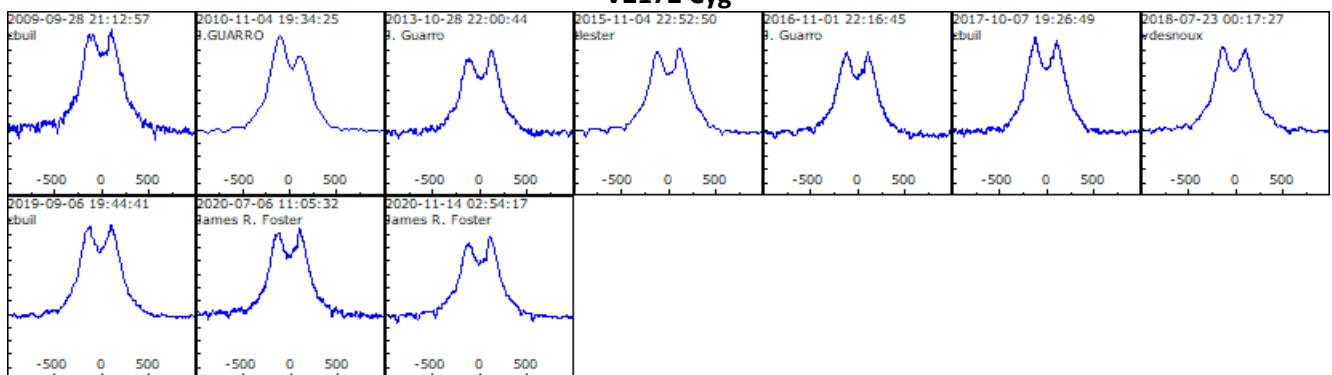
V1466 Aql



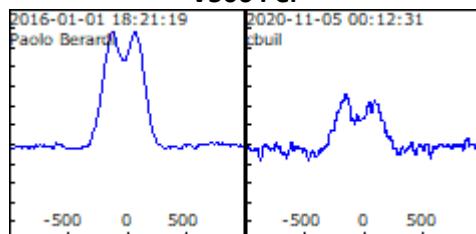
V404 Lac



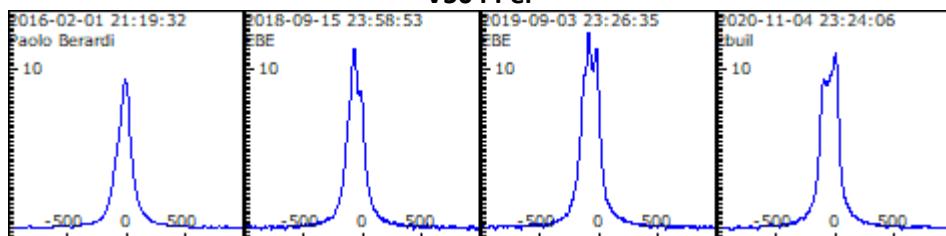
V2172 Cyg



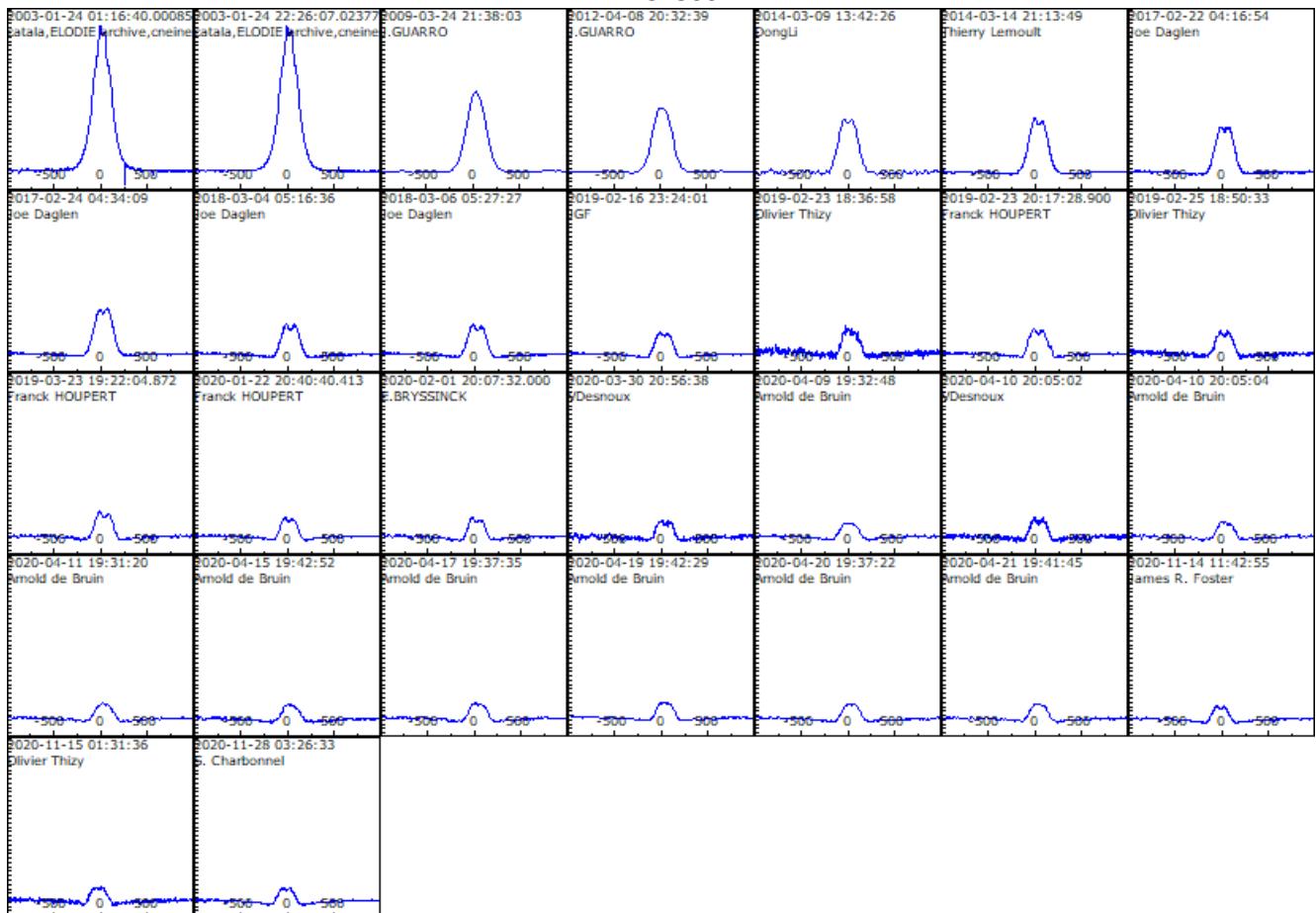
V506 Per



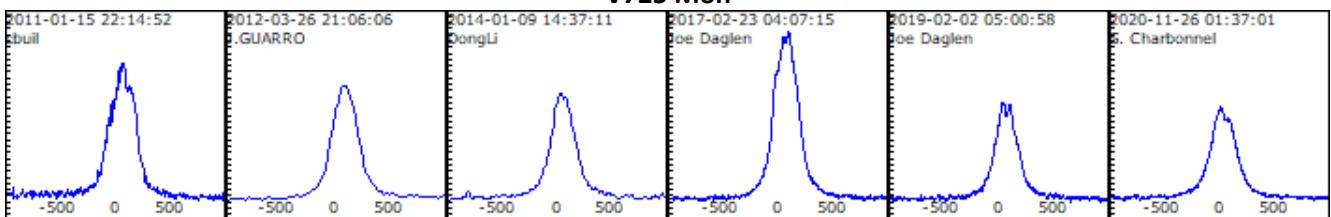
V504 Per



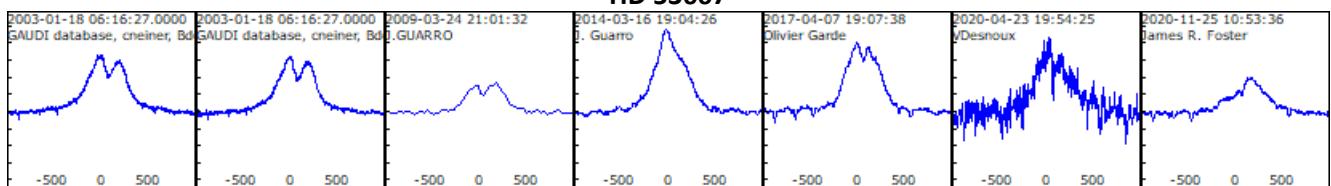
HD 51506



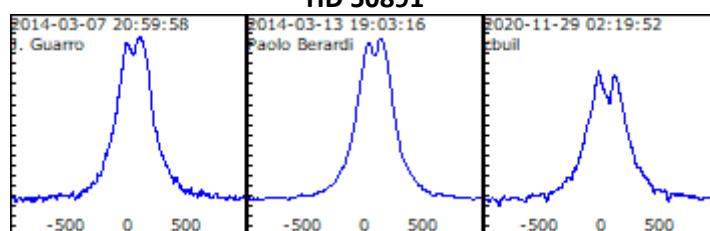
V725 Mon



HD 53667

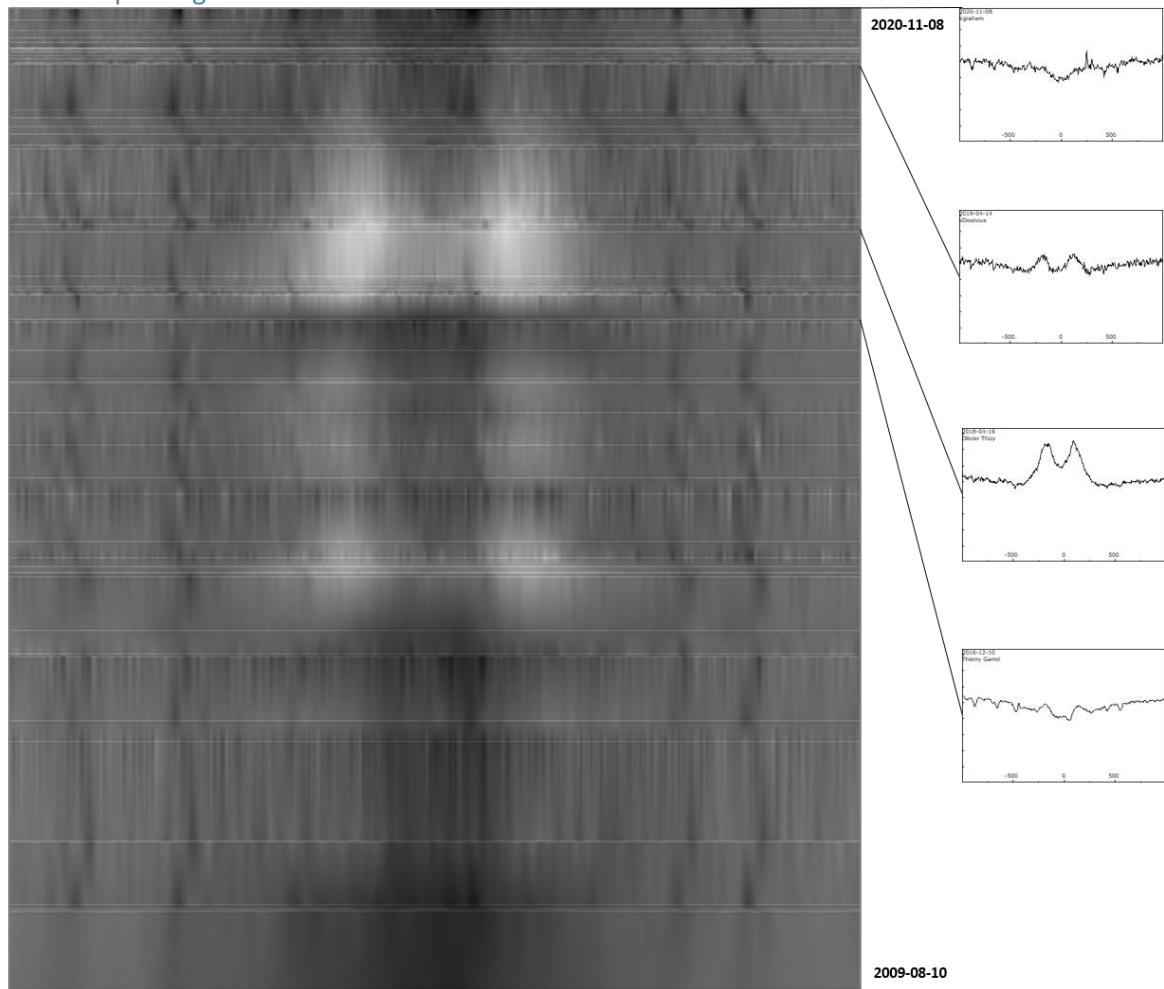


HD 50891

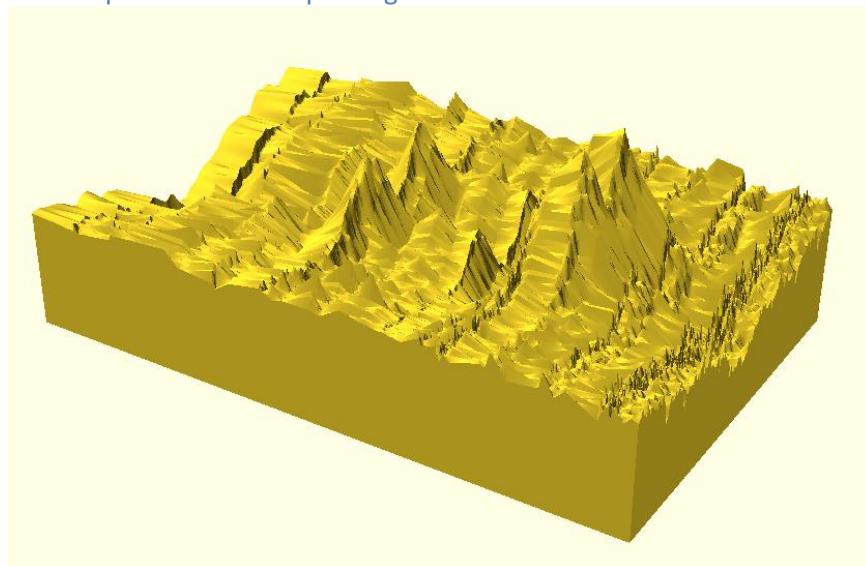


Zoom on... V532 Lyr

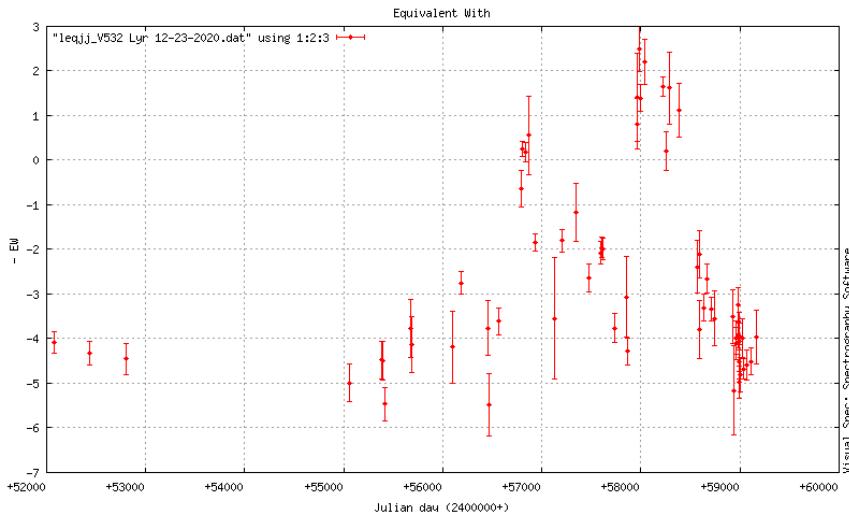
Chrono spectrogram from 2009 to latest November 2020 observations



3D interpolated chrono spectrogram



Equivalent Width curve with all data from BeSS – from 2001 to latest November 2020 observation



BeSS report Materiel & Method

For each star having a spectrum loaded in BeSS database for the monthly report the last six spectra in BeSS are displayed. A visual check is performed to detect any change in the H-alpha profile. Sometimes a copy/paste is needed for subtle evolutions.

For each star, which exhibits a change, the above series are generated with the following steps. Each spectrum is zoomed on the H-alpha line. Each profile is scaled on the continuum in the area of 6580 angströms. The x-axis is converted into Doppler velocity centered on H-alpha.

If too many spectra of the object are available, only a shorter period of observation is displayed.

The chrono spectrogram image is made of the original spectra intensities at the observed julian day and interpolated intensities for other julian day are within displayed with a 0.7 dim ratio. The wavelength range is 6546-6579 angströms and the julian day interpolation step is one day. Each beSS spectrum is corrected from heliocentric motion based on the BQVH value from the file header computed by BeSS.

The 3D volume view is generated by OpenScad with the command *surface*. The surface matrix file is generated by Visual Spec on a non-dimmed interpolated dataset

Equivalent width curves are generated from all BeSS spectra, on the range 6540-6586 angstroms – No heliocentric correction. Telluric lines are excluded from the computation. Error bar is representing the data noise computed from Chalabaev & Maillard (1983) formula.

All data are processed with Visual Spec dedicated functions to automatically load BeSS spectra and automatize most of the above processings.

To be noted: Shelyak, as a complex variable star is excluded from the report.

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

BeSS monthly report repository at <http://valerie.desnoux.free.fr/BeSS/>

ArasBeAM portal for Be Stars observations status at <http://arasbeam.free.fr/>