OAG-SVO SASDABA PROJECT

by T.Tobal and E.Solano

March 2025

OAG-SVO SASDABA PROJECT

- SASDABA PROJECT is a learning & observational Pro-Am project in astronomical spectroscopy, for amateurs, teachers and students interested in the issues of spectral classification in the MK System.

- Its aim is to create an archive of spectroscopic images of bright stars (with approximate V=5) in Northern and Southern Hemispheres (All Sky Survey).

- SASDABA stands for:
  Star Analyser Spectroscopic DAta BAse

- This project is coordinated by OAG-SVO
  (Garraf Astronomical Observatory &
  Spanish Virtual Observatory) in Spain

- In collaboration with :
Astronomical Association of Queensland (Australia)

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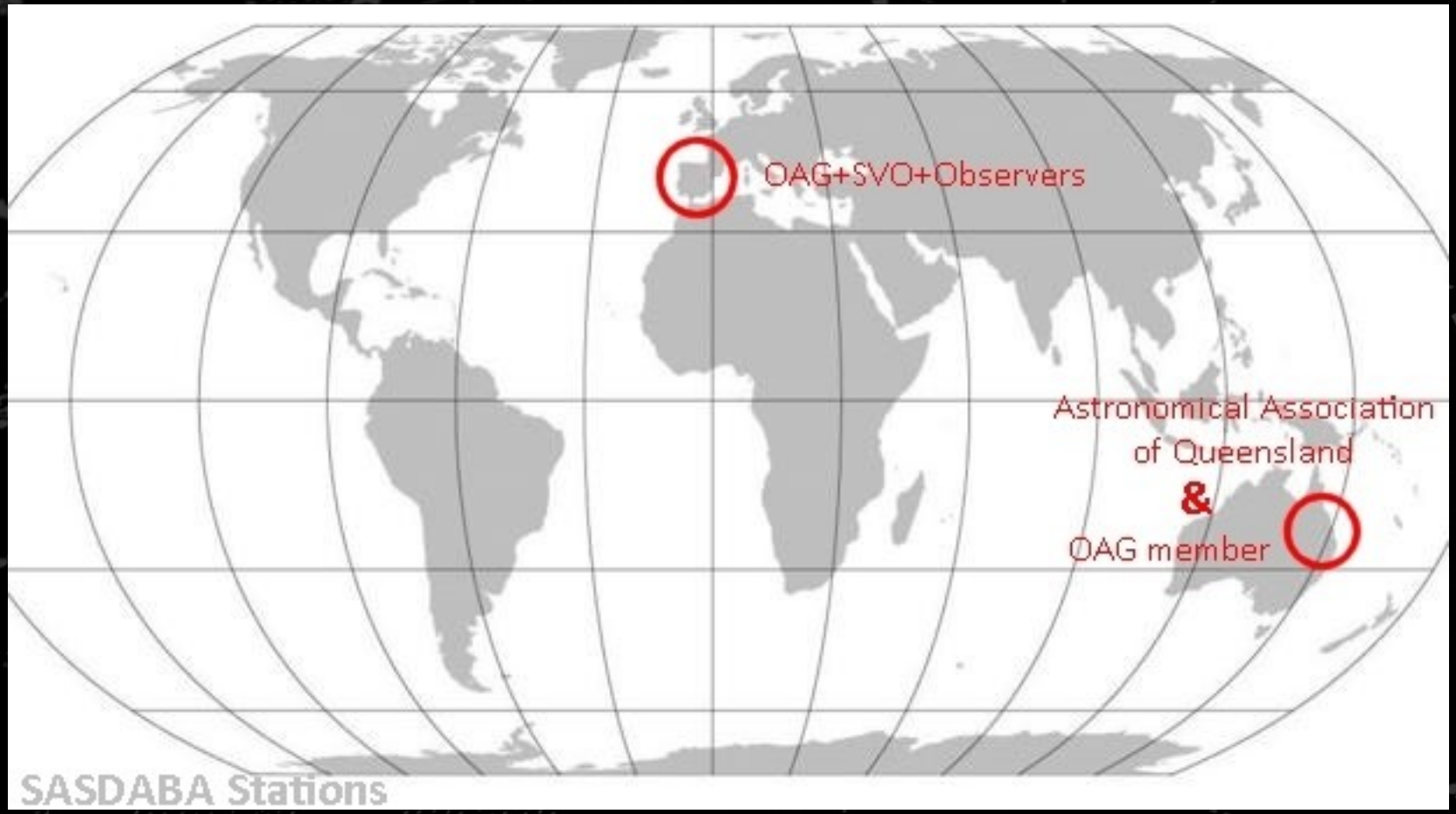

Two teams with Pro-Am members in Spain and Australia allow for full coverage the observations in the

Northern & Southern hemispheres

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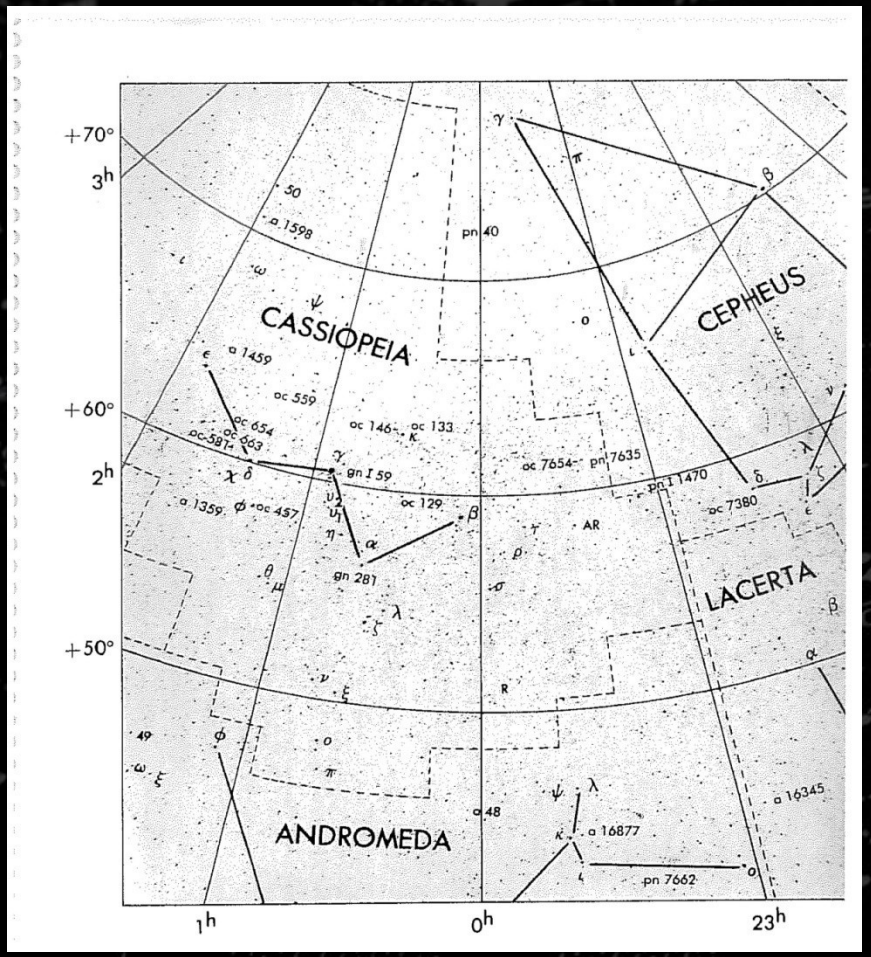

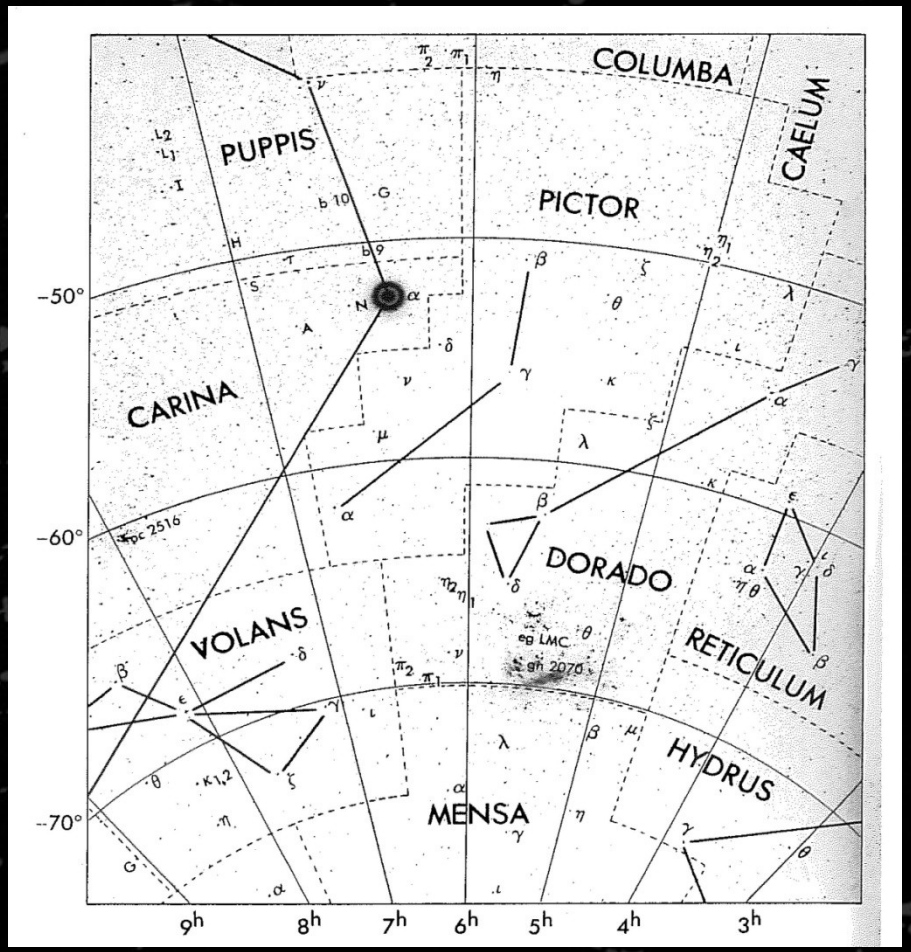

The Survey Charts (54) for SASDABA Project: Menzel's Photographic Atlas Charts Harvard Plates: see DASH Project in http://dasch.rc.fas.harvard.edu/project.php

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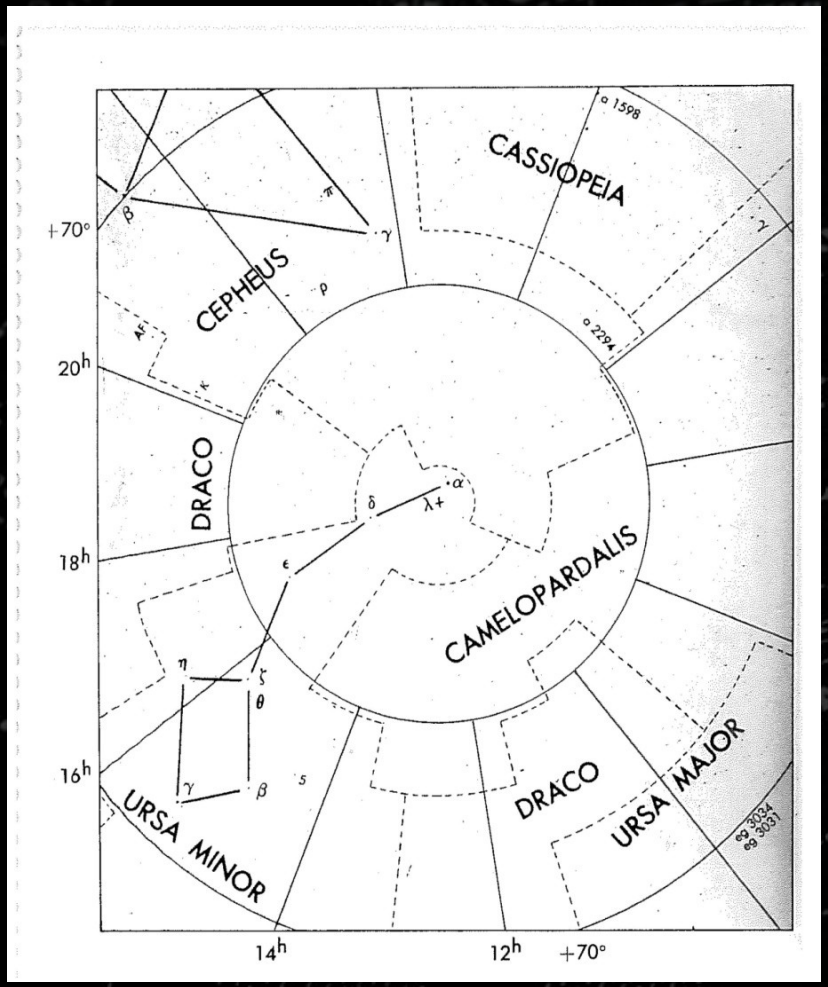

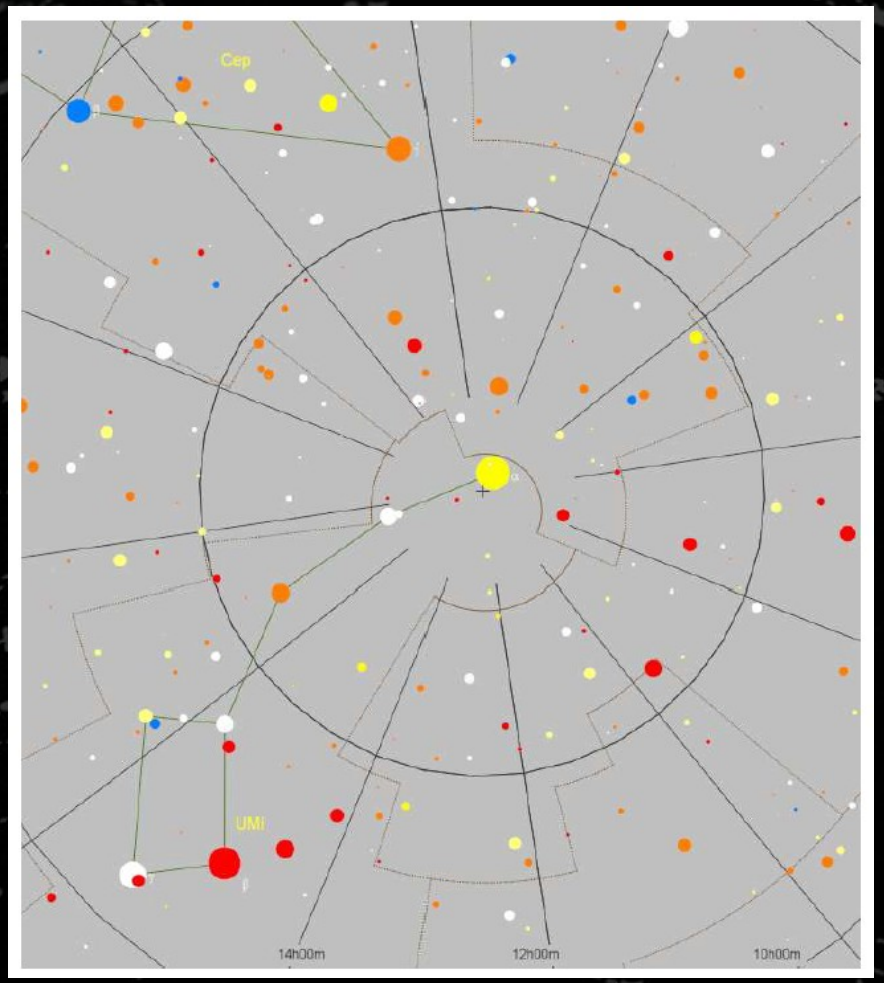

Menzel's PAC and map made with *Cartes du Ciel* for SASDABA Guide

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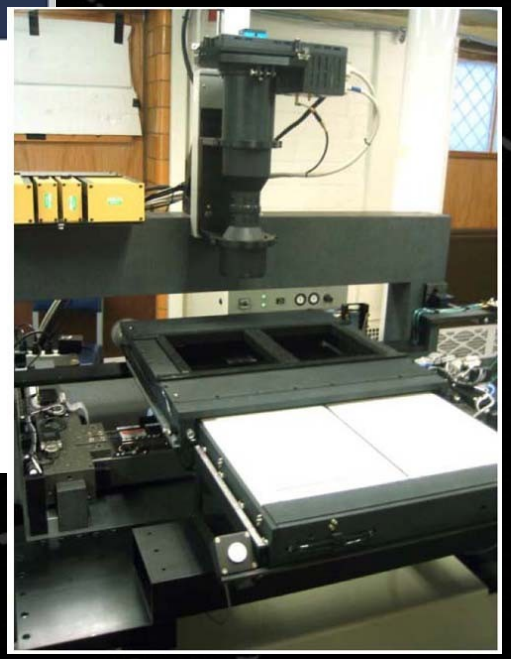

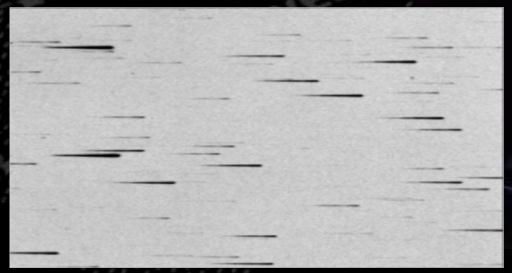

The DASH project (Digital Access to a Sky Century @ Harvard) taught us a lot about creating the structure and presentation of the results on the OAG website. The photographic charts of the survey for SASDABA are digitized and numbered in DASH.

OAG-SVO SASDABA PROJECT

2. Equipment: CCD and CMOS cameras, gratings, prisms and spectrographs

1

2

3

4

Telescope range: 80mm to 400mm aperture
Dispersion range: 1.5 A – 22A / pixel
File type: .avi / .fit / + .txt info
Grating: SA-100/200 & Prism 3.8º (1)
Spectrographs: Alpy600 (2), LHIRES-III (3)
DADOS (4) + 3D_Star'ex_JAS

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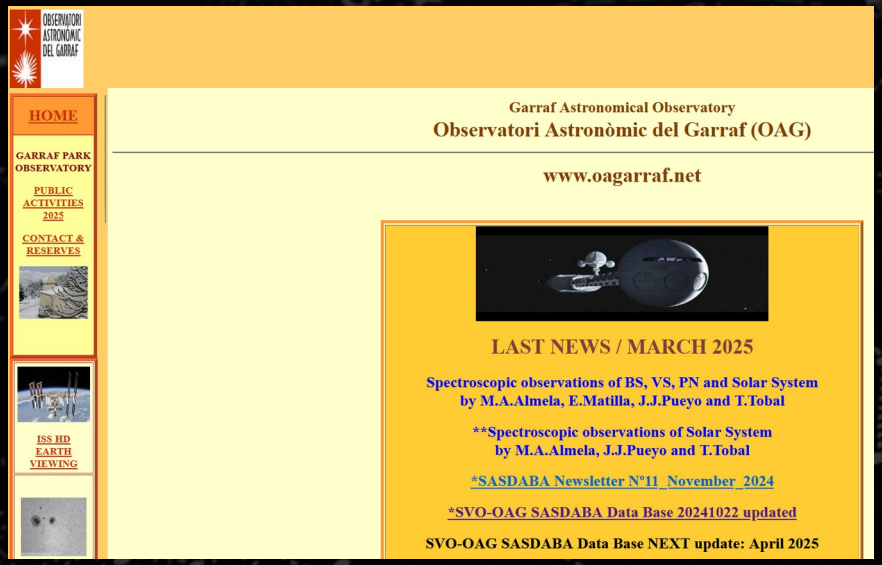

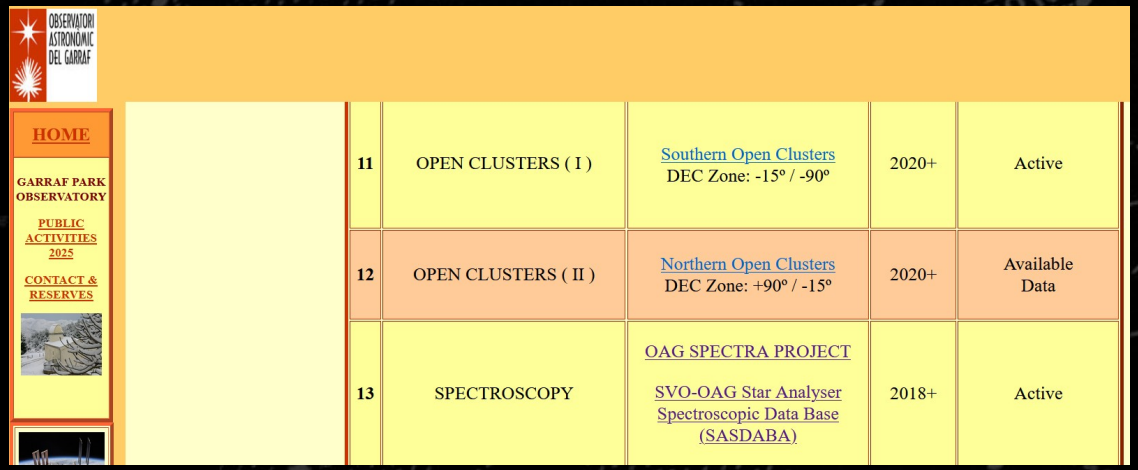

The OAG website: Project 13

www.oagarraf.net

Nº	OAG-SVO SASDABA PROJECT
I	SASDABA-SVO_Home
II	Spectra Project Data Recording
III	Spectra Project Logbooks Abstracts
IV	Survey MzPAC Statuts Table
V	Planetary Nebulae Data (in process)
VI	Harvard College Observatory Plates for the Menzel's Photographic Atlas Charts
VII	Stations & Members
VIII	Technical support to observers
IX	SASDABA Publications
X	SASDABA_Color Index Charts_v1
XI	**OAG-SASDABA Classroom** send inscription to e-mail: informaciooag@gmail.com
A1	**DASCH** Digital Access to a Sky Century @ Harvard **PHaEDRA** PROJECT Transcription of Logbooks
A2	**SCOPE PROJECT** STELLAR CLASSIFICATION PUBLIC EXPLORATION
A3	Spectral Classes and Stars Colors (Wiky info)
A4	Greek Alphabet

OAG-SVO SASDABA PROJECT

Spanish Virtual Observatory (SVO)

- *IVOA member since 2004.*
- *Coordination of VO activities in Spain.*
- *Four major lines of work:*
  - *VO compliance of astronomical archives.*
  - *Development of VO tools.*
  - *VO-science.*
  - *Education & Outreach.*

http://svo.cab.inta-csic.es

International Virtual Observatory Alliance

OAG-SVO SASDABA PROJECT

The SASDABA interface in SVO web site

OAG-SVO SASDABA PROJECT

Object List by AR order

Results

results found

Search selected objects

Select	Search	Name	HD Name	Bayer id	Flamsteed id	SIMBAD	RA (degree)	Dec (degree)	RA	Dec	V?	Spec. Type?
☐	View observations	-	HD225003	c Psc	32 Psc	view	0.62376	8.48546	00 02 29.702	+08 29 07.67	5.690	F1V C 2006AJ....132..161G
☐	View observations	Sirrah	HD358	del Peg	21 And	view	2.09692	29.09043	00 08 23.260	+29 05 25.55	2.06	B8IV-VHgMn C 2003AJ....126.2048G
☐	View observations	Caph	HD432	bet Cas	11 Cas	view	2.29452	59.14978	00 09 10.685	+59 08 59.21	2.27	F2III C 2003AJ....126.2048G
☐	View observations	-	HD493	kap01 Scl	-	view	2.33778	-27.98793	00 09 21.067	-27 59 16.53	-	F3V C 1982MSS...C03....0H
☐	View observations	Algenib	HD886	gam Peg	88 Peg	view	3.30896	15.18359	00 13 14.151	+15 11 00.94	2.84	B2IV D 2007MNRAS.374..664C
☐	View observations	-	HD1013	chi Peg	89 Peg	view	3.65069	20.20670	00 14 36.165	+20 12 24.12	4.800	M2+III B 1989ApJS...71..245K
☐	View observations	-	HD1038	-	7 Cet	view	3.66007	-18.93287	00 14 38.417	-18 55 58.31	4.46	M1III C 1988MSS...C04....0H
☐	View observations	-	HD1061	-	35 Psc	view	3.74517	8.82096	00 14 58.840	+08 49 15.46	6.01	F0 E 1993yCat.3135....0C
☐	View observations	-	HD1280	tet And	24 And	view	4.27291	38.68164	00 17 05.499	+38 40 53.89	4.61	A2V C ~
☐	View observations	-	HD1337	-	-	view	4.42943	51.43309	00 17 43.063	+51 25 59.12	6.14	O9.2II+O8V((f)) C 2014ApJS..211...10S
☐	View observations	-	HD1404	sig And	25 And	view	4.58191	36.78523	00 18 19.657	+36 47 06.81	4.52	A2V C 2012A&A...538L...6H

By Date

Name	HD Name	Bayer id	Flamsteed id	SIMBAD	RA (degree)	Dec (degree)	RA	Dec	V?	Spec. Type?	Date	Time	Obs. CODE	Sci File
Rigel	HD34085	bet Ori A	19 Ori	view	78.63447	-8.20164	05 14 32.272	-08 12 05.90	0.13	B8Iae C 1943ApJ....98..153M	2018-01-29	20:28:54	TOB-1	Avi file
Castor B	HD60178	alf01 Gem	66 Gem B	view	113.65042									
-	HD37020	tet01 Ori A	41 Ori A	view	83.81594									
-	HD37020	tet01 Ori A	41 Ori A	view	83.81594									
Rigel	HD34085	bet Ori A	19 Ori	view	78.63447									

By object ID

Results

11 results found

Download selected files

Name	HD Name	Bayer id	Flamsteed id	SIMBAD	RA (degree)	Dec (degree)	RA	Dec	V?	Spec. Type?	Date	Time	Obs. CODE	File: Sci File	File: Txt File
North Star	HD8890	alf UMi	1 UMi	view	37.95456	89.26411	02 31 49.095	+89 15 50.79	2.02	F8Ib C 1993ASPC....45...59L	2019-03-23	23:23:26	TOB-1	Avi file	txt file
North Star	HD8890	alf UMi	1 UMi	view	37.95456	89.26411	02 31 49.095	+89 15 50.79	2.02	F8Ib C 1993ASPC....45...59L	2019-03-23	23:22:45	TOB-1	Avi file	txt file
North Star	HD8890	alf UMi	1 UMi	view	37.95456	89.26411	02 31 49.095	+89 15 50.79	2.02	F8Ib C 1993ASPC....45...59L	2019-06-13	01:05:21	TOB-1	Avi file	txt file
North Star	HD8890	alf UMi	1 UMi	view	37.95456	89.26411	02 31 49.095	+89 15 50.79	2.02	F8Ib C 1993ASPC....45...59L	2019-06-13	01:02:22	TOB-1	Avi file	txt file
North Star	HD8890	alf UMi	1 UMi	view	37.95456	89.26411	02 31 49.095	+89 15 50.79	2.02	F8Ib C 1993ASPC....45...59L	2019-06-13	01:11:17	TOB-1	Avi file	txt file

By Observer Code

2049 results found

Download selected files

Name	HD Name	Bayer id	Flamsteed id	SIMBAD	RA (degree)	Dec (degree)	RA	Dec	V?	Spec. Type?	Date	Time	Obs. CODE	Sci File
-	HD37020	tet01 Ori A	41 Ori A	view	83.81594	-5.38731	05 35 15.825	-05 23 14.33	6.73	B0V C 1977ApJS...34..115W	2018-01-29	20:34:53	TOB-1	Avi file
Rigel	HD34085	bet Ori A	19 Ori	view	78.63447	-8.20164	05 14 32.272	-08 12 05.90	0.13	B8Iae C 1943ApJ....98..153M	2018-01-29	20:28:54	TOB-1	Avi file
Castor B	HD60178	alf01 Gem	66 Gem B	view	113.65042	31.88849	07 34 36.100	+31 53 18.57	3.0	kA0hA2mA1IVs B 1995ApJS...99..135A	2018-01-29	21:36:19	TOB-1	Avi file
-	HD37020	tet01 Ori A	41 Ori A	view	83.81594	-5.38731	05 35 15.825	-05 23 14.33	6.73	B0V C 1977ApJS...34..115W	2018-01-29	20:33:32	TOB-1	Avi file
Pollux	HD62509	bet Gem	78 Gem	view	116.32896	28.02620	07 45 18.950	+28 01 34.32	1.14	K0IIIb B 1989ApJS...71..245K	2018-01-29	21:20:03	TOB-1	Avi file

SASDABA search options: Object List, Date, Obs. Code, ID, (SIMBAD)

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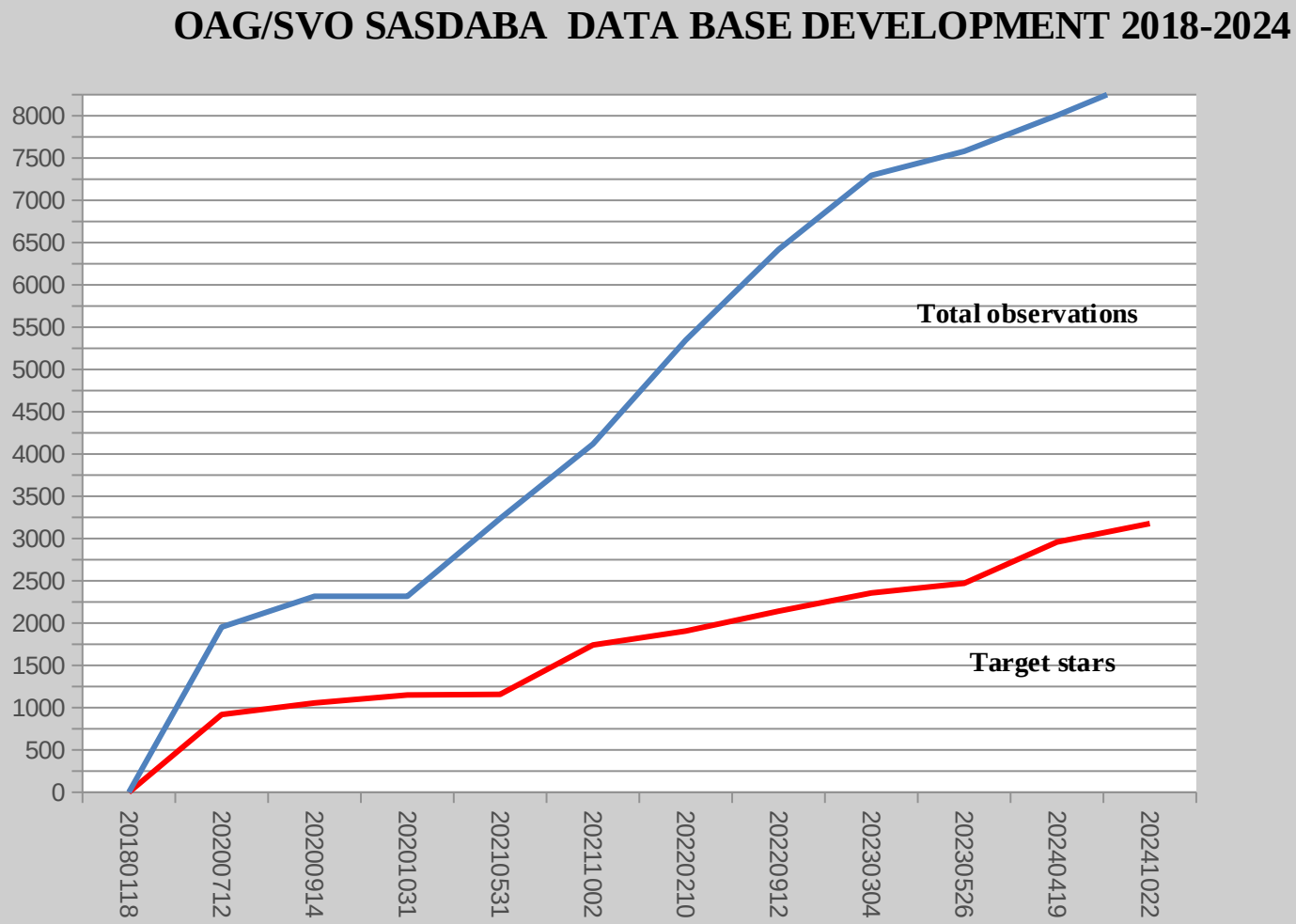

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SASDABA RESULTS / UPDATED 20250301

1. Data: 160 GB
2. Files: 13.000+ (AVI / SER/ FITS)
3. Spectroscopic images: 8500+
4. Stars: 3.200+ (Northern & Southern Hemispheres)
5. Total Observations Nights: 900+ (Average 40% year)
6. Survey Status: 100 % completed (+90º to -90º DEC :100%). December 2023 (SASDABA_R1)
7. Publications & technical support to observers
8. Meetings, Workshops and share information
9. New Programs: Variable Stars (V=7) / Planetary Nebulae
10. New Programs: Memorial Mc Lean Survey (V=3.5)

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Beta_Tuc system with Star Analyser by C.Ryan from Australia

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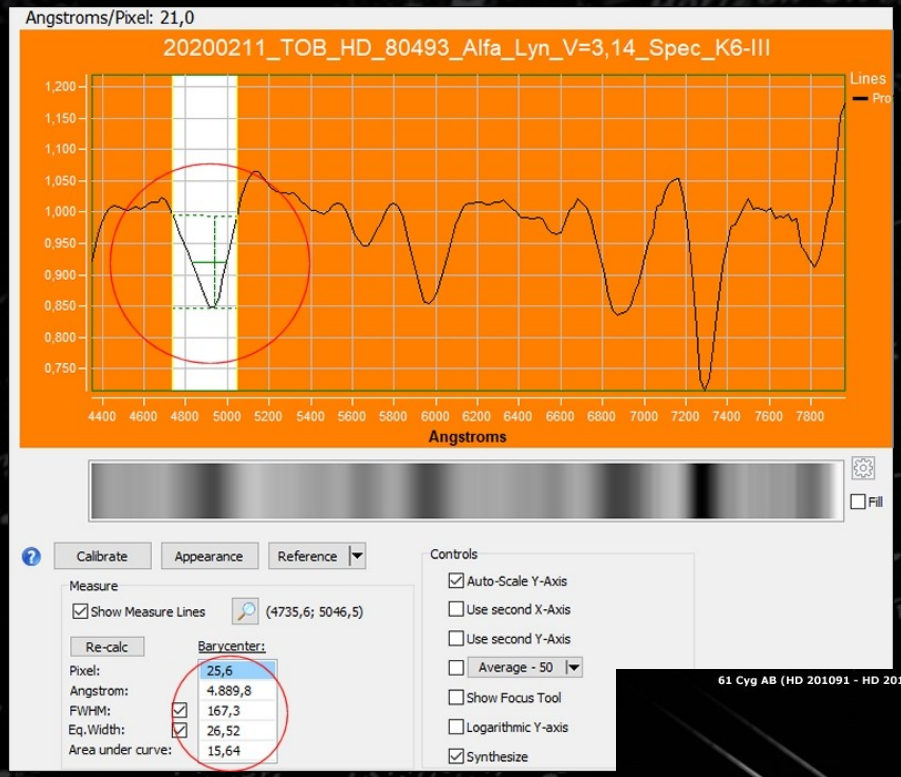
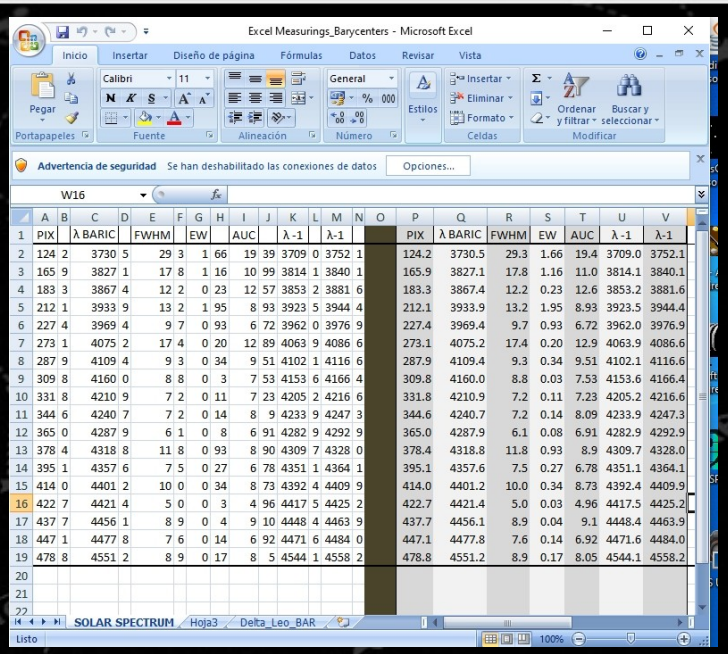
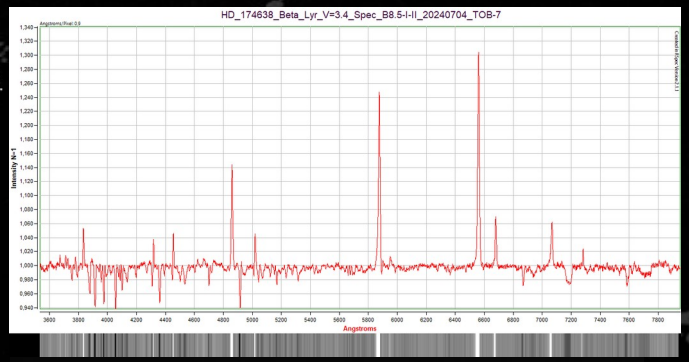




61 Cyg AB (HD 201091 - HD 201092). C-11+ASI 174MM+SA-100
20180725 .T.Tobal. OAG.



SASDABA allows a multitude of learning practices and subsequent analysis

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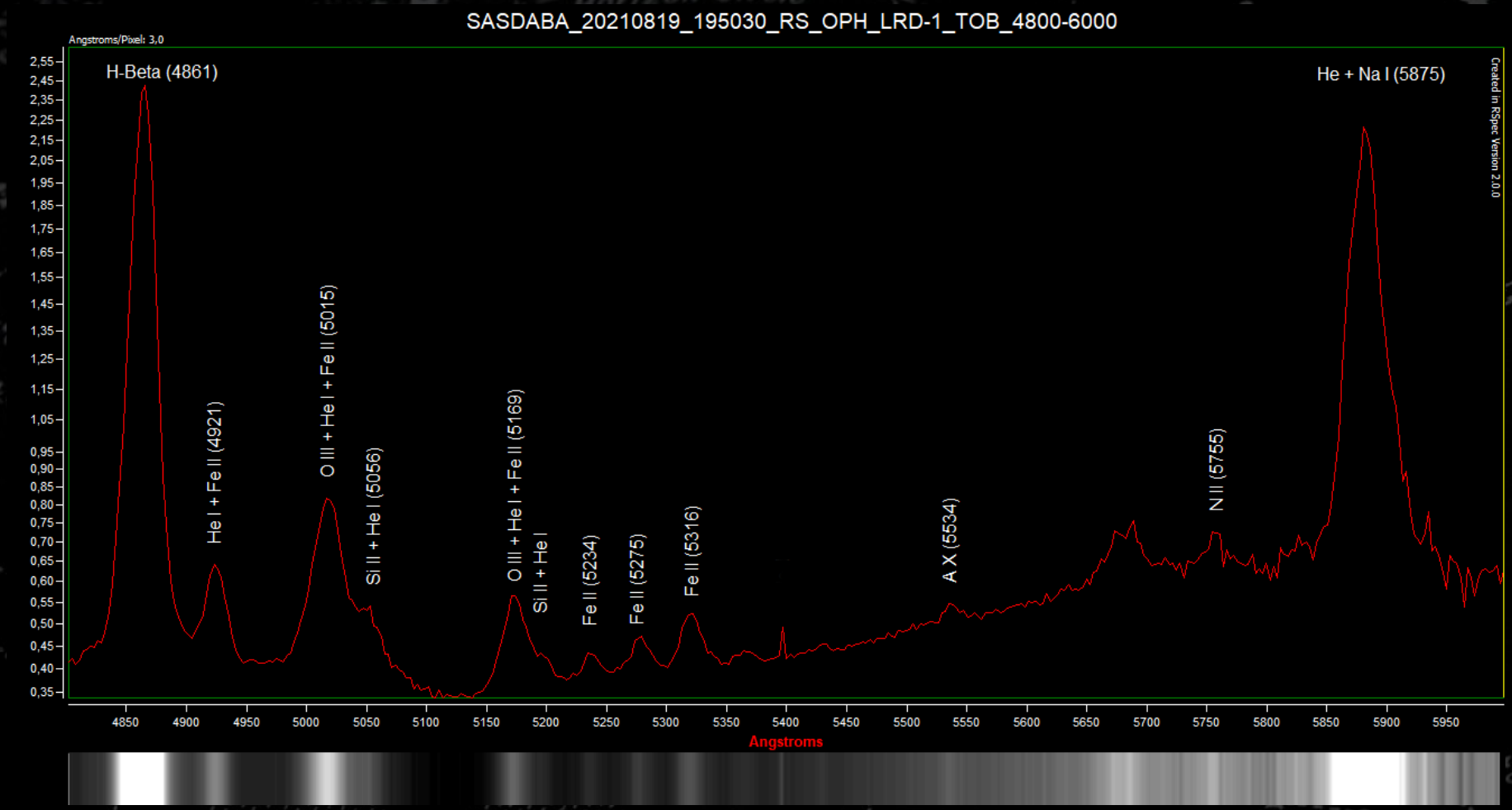

Processing stellar spectra (IIIb): Identification and labels

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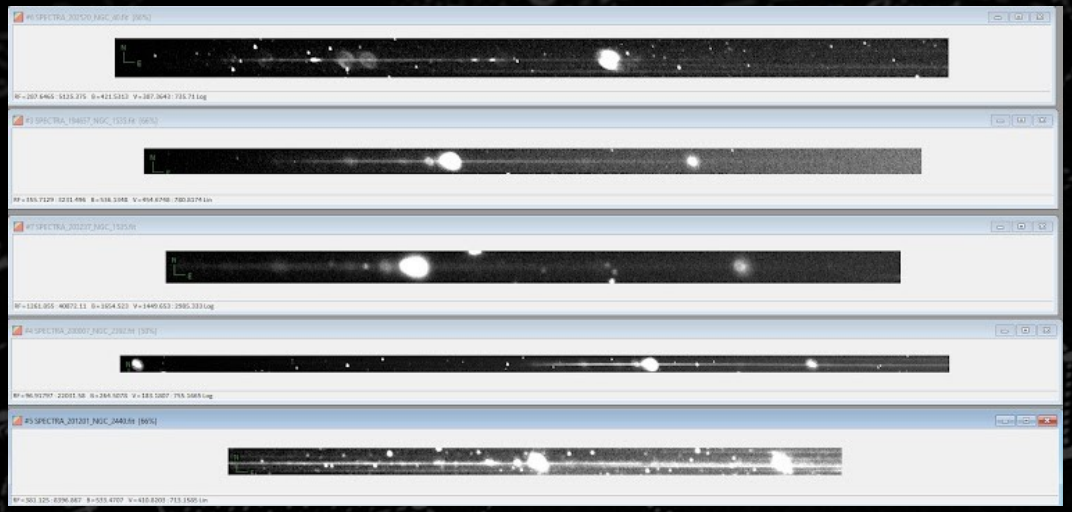
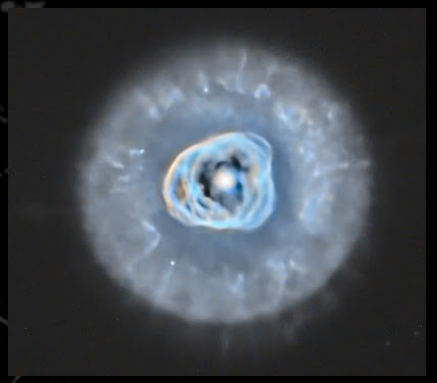
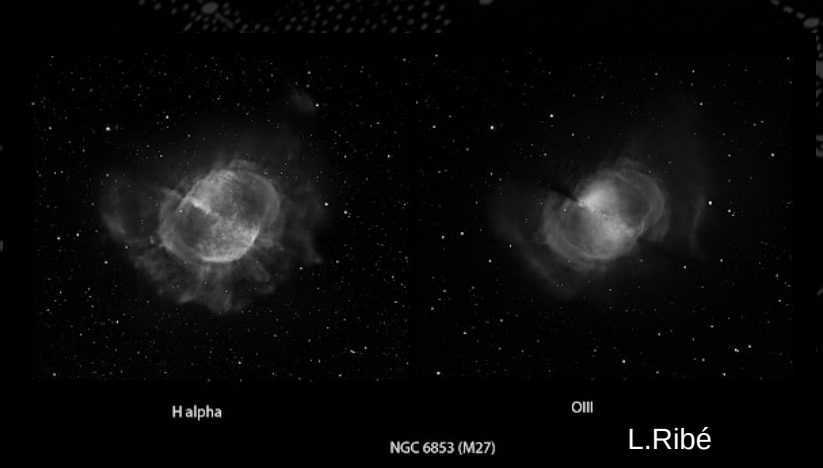


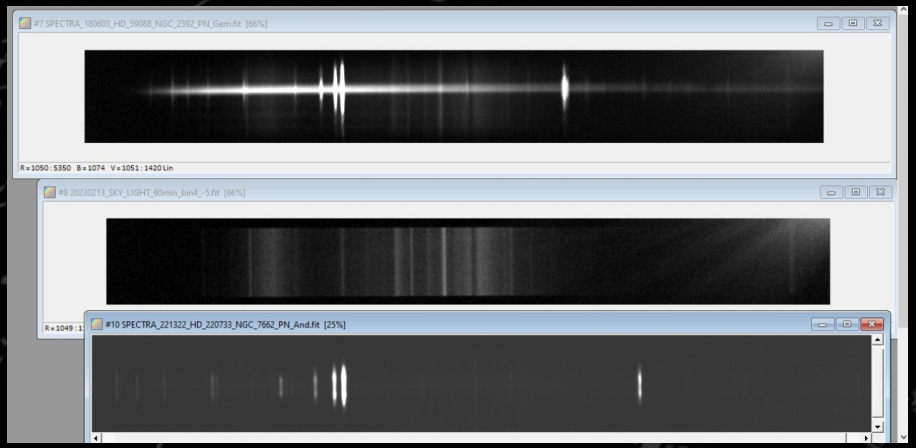
Star Analyser observations by J.A.Santiago



NGC 2392. IAC 80 by E.Matilla



L.Ribé



Spectrograph observations by T.Tobal

Planetary Nebulae observations: gratings, spectrographs and selective filters

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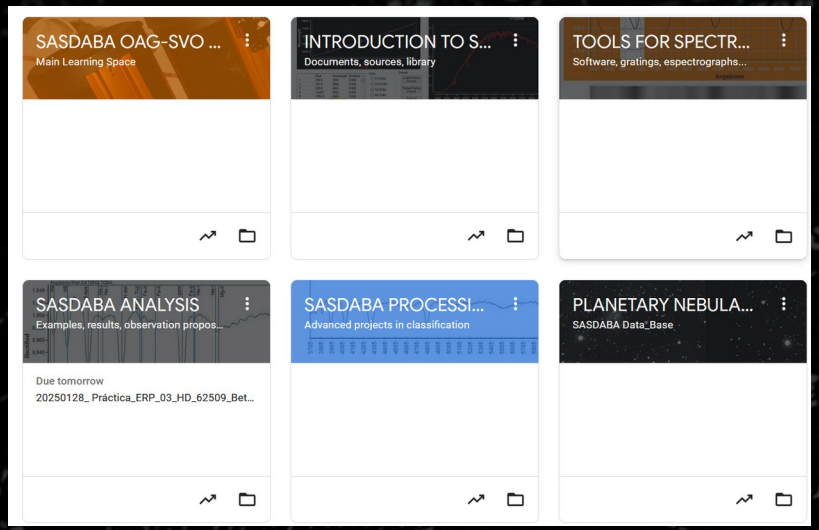
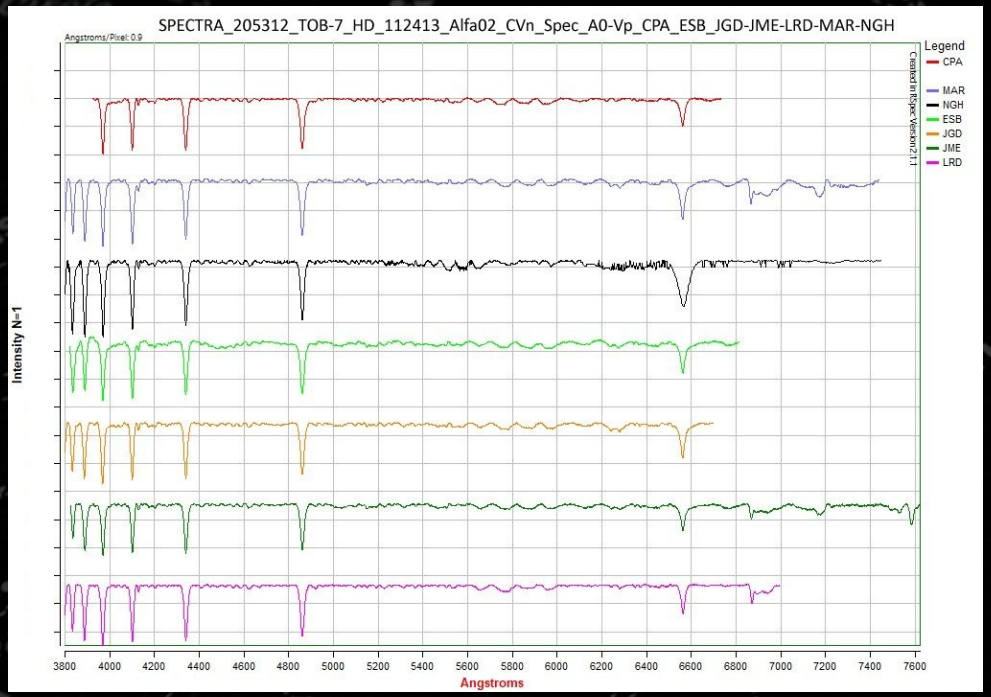
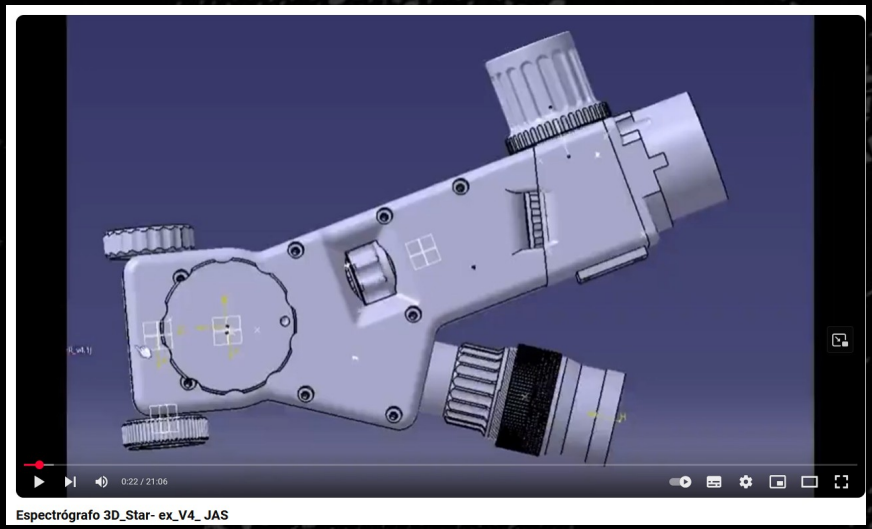
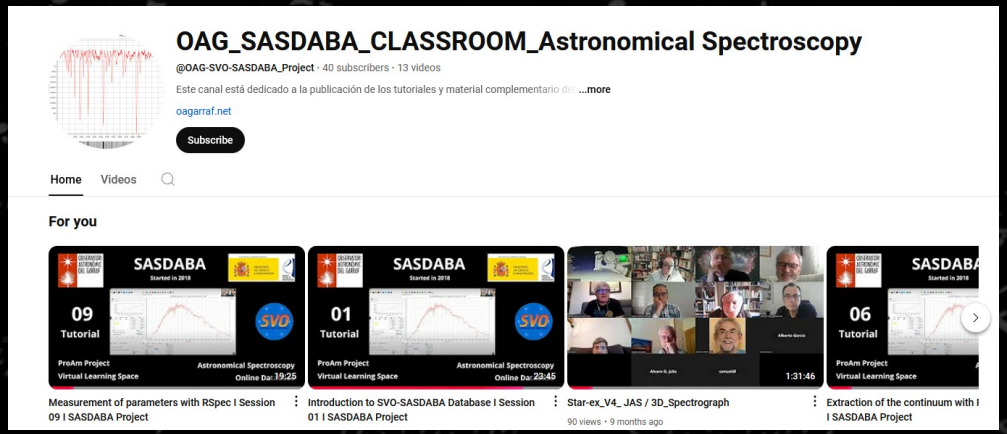






Espectrógrafo 3D_Star- ex_V4_ JAS



SASDABA CLASSROOM Virtual Learning Space, it's free and open for everyone

OAG-SVO SASDABA PROJECT

COORDINATION MEMBERS

Member	Team	Location	Task
T.Tobal	OAG	Barcelona (Spain)	Coordination-Am Project
A.G.Santiago	OAG	Córdoba (Spain)	Support to Coordination Am
J.M.Espinosa	OAG	Cádiz (Spain)	Support SASDABA_Classroom
E.Solano	SVO-CAB-CSIC	Madrid (Spain)	Coordination-Pro Project
J.M.Alacid (2019-2020)	SVO-CAB-CSIC	Madrid (Spain)	SASDABA Data Base
A.García (2020-2024)	SVO-CAB-CSIC	Madrid (Spain)	SASDABA Data Base
J.Cairol	OAG / ISHS	Brisbane (Australia)	Didactic / Documentation
R.Hernández	AAM / UPM	Madrid (Spain)	Documentation / Applications

- Observers and Collaborating Members (2018-2025):

M.A.Almela, S.Blázquez, R.Castillo , A.Castro , D.Cejudo , L.M. Domínguez, J.M. Espinosa, S.Kerr , E.Matilla, J.Marco, V.Mateos , X.Miret, J.J.Pueyo, M. Rodríguez, L.Romero, C.Ryan , L.Ribé, A.G.Santiago, A.Sánchez, T.Tobal, J.West.

OAG-SVO SASDABA PROJECT

The SASDABA Archive is part of the Spanish Virtual Observatory project (https://svo.cab.inta-csic.es) funded by MCIN/AEI/10.13039/501100011033 through grant PID2023-146210NB-I00

This research used of "Aladin Sky Atlas" developed at CDS, Strasbourg Observatory, France → 2000A&AS..143...33B and 2014ASPC..485..277B.

The DASCH project at Harvard is grateful for partial support from NSF grants AST-0407380, AST-0909073, and AST-1313370

SASDABA website: https://sdc.cab.inta-csic.es/sasdaba/

OAG website: www.oagarraf.net

Project contact: informaciooag@gmail.com

Acknowledgements: to Còsmik SL and Astronscientific for their providing us with the necessary equipment. To T. Field for his support in the RSpec software. To J.A.Soldevilla, A.Sánchez for their maintenance work in OAG Stations., and to D.Valls (Obs París-Meudon) and J.Fabregat (UV) for his support.

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March 2025