
WP2 progress report. The VO school

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CoSADIE WP2

Main goal: Increase awareness among and gather requirements from the astronomical community and data providers.

- WP2.1 Science Working group
- WP2.2 Data Centre Working Group

Work package No	Work package title
WP1	Management
WP2	Increasing awareness and gathering requirements from the user and provider communities
WP3	Coordinating technical activities and defining the technical needs to maintain the VO framework
WP4	Outreach towards education and the general public
WP5	Strategy, governance and financial sustainability of Euro-VO



WP2 - Increasing awareness and gathering requirements

Work Package number	WP2	Start date or starting event:				Month 1
Work Package title	Increasing awareness and gathering requirements					
Activity type	COORD					
Participant number	1	2	3	4	5	
Participant short name	CNRS	INAF	INTA	UEDIN	UHEI	
Person-month per participant	1 (+3)	0 (+2)	5 (+1)	1 (+1)	5 (+1)	

Activities towards the science community

- ✓ Support to groups with research lines that could benefit from using a VO methodology.

o Support to scientific groups

■ Large consortia

■ [DUNES](#)

- DUst around NEArby Stars. The survey observations. [2013A&A...555A..11E](#)

■ [RoPACS](#)

- The first planet detected in the WTS: an inflated hot Jupiter. [Cappetta et al. 2012MNRAS.427.1877C](#)

■ Other groups

- Proper motions of young stars in Chamaeleon. II. New kinematical candidate members of Chamaeleon I and II. [López-Martí et al. 2013arXiv1307.3414L](#)
- An in-depth study of HD 174966 with [CoRoT](#) photometry and HARPS spectroscopy. Large separation as a new observable for delta Sct stars. [García-Hernández et al. 2013arXiv1307.2739G](#)
- Kepler observations of very low-mass stars. [Martín et al. 2013A&A...555A.108M](#)
- A Virtual Observatory Census to Address Dwarfs Origins (AVOCADO). I. Science goals, sample selection, and analysis tools. [Sánchez-Janssen et al. 2013A&A...554A..20S](#)
- Proper motions of young stars in Chamaeleon. I. A Virtual Observatory study of spectroscopically confirmed members. [López-Martí et al. 2013A&A...551A..46L](#)
- Red supergiants around the obscured open cluster Stephenson 2. [Negueruela et al. 2012A&A...547A..15N](#)



DUNES: DUst around NEArby Stars

A Herschel Key Programme

RoPACS: Rocky Planets Around Cool Stars

A Marie Curie Initial Training Network

Activities towards the science community (II)

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SPACEINN

Exploitation of Space Data for
Innovative Helio- and
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COSADIE Forum

Heidelberg, 10/06/13

E. Michel, Observatoire de Paris-LESIA



Activities towards the science community (III)

✓ Organization of VO schools

○ Organization of VO schools

- [CoSADIE](#) VO school [5-7 February 2013, Madrid](#)
- VO School. Brazil. [18-19 October 2012, Sao Paulo](#)
- VO Workshop, 4-6 December, Roma, Italy, organised by [Vobs.it](#) [OATs/INAF](#): [meeting site](#)

✓ The best way to contact the community

The CoSADIE VO school: Basics

✓ Goals:

- ✦ Become familiar enough with VO tools to use them in their own scientific research.
 - ✦ Gather feedback and requirements from the participants.
- ✓ Open to all European (including non-partner) countries.
- ✓ Mainly focused on young people (PhD / postdocs).

✓ Where?: Madrid.

Centro de Astrobiología
(ESAC campus)

✓ When?: 2013, Feb 5-7



The VO school: Advertisement

- ✓ **In the CoSADIE partner countries** by the members of the Executive Board.
- ✓ **In countries outside the project:**
 - ✦ By contacts established in previous Euro-VO projects: Czech Republic, Hungary, Lithuania, Portugal and Romania.
 - ✓ Other contacts: Austria, Belgium, Denmark, Greece and Poland.
 - ✓ **Other channels:** EAS e-newsletters and Euro-VO mailing list.

The VO school: Selection criteria

- ✓ **59** applications were received and reviewed by the members of the Executive Board (the school was scaled to 35 participants).
- ✓ **Selection criteria:**
 - ⌘ Professional profile
 - ⌘ Attendance to previous schools
 - ⌘ Submission of use case
 - ⌘ Country of origin

The VO school: Participants' profile



- ✓ PhD (26). Postdocs (7). NEON (1)
- ✓ CoSADIE countries (27). Non-partners (8 participants/ 7 countries)

The VO school: Organization

Scientific and Technical Organizing Committee

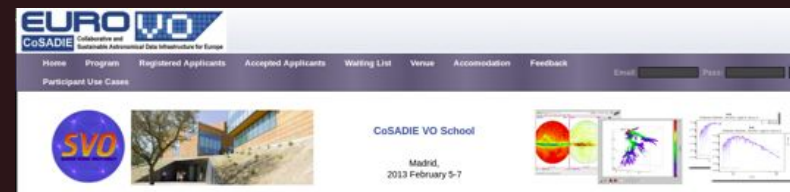
- Enrique Solano
- Mark Allen
- Francisco Jiménez
- Carlos Rodrigo
- Miriam Aberasturi
- Giulia Iafrate
- Gabriel Stoeckle
- Markus Demleitner
- Marco Molinaro
- Sebastien Derriere
- Massimo Ramella
- Deborah Baines
- Mark Taylor
- Paul Harrison

- ✓ Selection and preparation of the tutorials.
 - ✓ e-mail
 - ✓ Telecons (2)
- ✓ Guidance on cases proposed by participants.

Local Organizing Committee

- Enrique Solano
- Francisco Jiménez
- Carlos Rodrigo
- Rebeca Pulido
- Miriam Aberasturi

- ✓ Venue
- ✓ Accomodation
- ✓ Web page



The VO school: Programme

- 09:30 - 10:15 **Introductory talks**

- 09:30 - 09:45 Introduction to the VO (Mark Allen)
- 09:45 - 10:00 VO tools. Science with the VO (Enrique Solano)
- 10:00 - 10:15 Introduction to the school (Francisco Jiménez)

✓ 45 min.



The VO school: Programme (II)

Case #1

Last modification: E. Solano 4 Feb 2013

Paper: "VOSA: Virtual Observatory Sed Analyzer. An application to the Collinder 69 open cluster" (Bayo et al., 2008 A&A 492, 277)

- **Step 1.-** Go to <http://svo2.cab.inta-csic.es/theory/vosa/>
- **Step 2.-** To use VOSA you need to be registered. Click on "Register" and fill in the fields (email, name and passwd).
- **Step 3.-** VOSA can be used to study stellar and extragalactic data. For this use case, click on "Stars and brown dwarfs".
- **Step 4.-** Cut and paste in a file the list of objects in "VOSA format" included in [vosa_usecase1.txt](#)
- **Step 5.-** Upload the file in VOSA ("File to upload"). Give a description (free text) and do not forget to select "magnitudes" as file type. Then, click "Upload". The message "**your-file-name** has been successfully uploaded!" will appear. Click "Continue".
- **Step 6.-** Skip the tag "Objects". With the next tag ("VO Phot.") we can complement our "user photometry" with photometry found in VO services. For this use case, click "unmark All" and select only 2MASS, WISE and CMC-14. Then, click "Query selected services". Do not forget to click on "Save VO photometry" once the results are displayed. Once this is done, a summary table with the VO photometry (in flux units) will appear.
- **Step 7.-** The next tag ("SED") gives us the possibility of checking the SED before the model fitting. User data are plotted in red and VO data in green. Bad photometric points / upper limits can be deleted / no including in the fitting by clicking on the corresponding check box and click on "Apply changes". If VOSA detects an infrared excess, the photometric points are drawn in black and are not considered in the fitting process. The user can manually override it and specify a new limit in the "Apply infrared excess from" panel. Veiling can also be taking into account photometric points bluewards than the wavelength included in the "Apply UV/blue excess up to" box will not be included in the fit. For this use case, do not make any change.
- **Step 8.-** In the next tag ("Chi-2 Fit"), different grids of theoretical models covering different ranges of physical parameters are displayed. For this case, click "unmark All" and select only the "BT-Set1". To save time, do not tick "include model spectrum in fit plots". Finally, click on "Next.Select model params".

The VO school: Programme (III)

- 11:45 - 12:45 Tutorial #5 (1h)
 - Title: Treasure hunt
 - VO-tools:
 - Tutor: M. Allen + M. Molinaro + G. Stoeckle

Question 3.

- How many Eclipsing Binaries in the Kepler mission first data release fall within the sky area covered by the Sloan Digital Sky Survey?

hint: Data Release catalogue by Prsa+, 2011

hint: Use the All-Sky image of SDSS

The VO school: Programme (IV)

Use cases suggested by school participants

- **Ángel Giménez (Spain)**

- **Title:** Identification and characterization of optical counterparts to X-ray binary system.
- **Description:** We would like to develop a scientific case that enables us to identify and characterize optic counterparts in X-ray binary systems, in a similar way to that carried out by Ivan Zolotukhin identifying H-alpha emitters in X-ray surveys. It would be also interesting for us to study the wind properties of massive stars, accomplishing a multi-wavelength study in a spectral region as wide as possible, to get an amount of information as large as possible.

- **Participants:** A. Giménez, **Elisa Nespoli, Damya Souami, Olivera Latkovic**

VO tutorial: H-alpha emitters in X-ray surveys

H-alpha emitters in X-ray surveys

Tutorial instruction

by Ivan Zolotukhin (Sternberg Astronomical Institute / Observatoire de Paris)

0. Download jar files of Aladin and TOPCAT if you do not have them. One can easily find them using Google. To be on the safe side, here is the links:

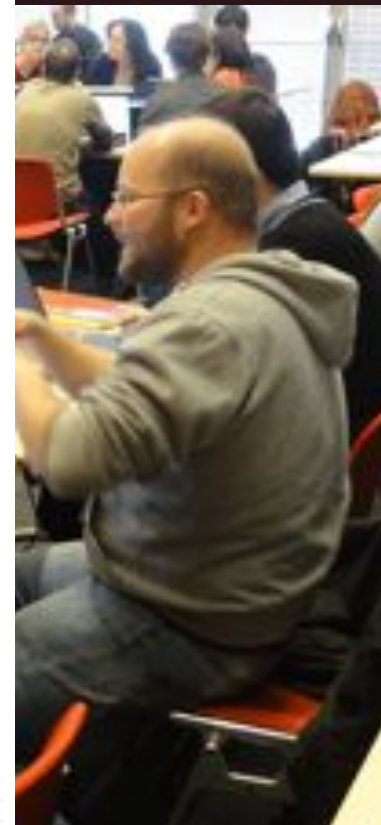
1. Aladin: <http://aladin.u-strasbg.fr/java/nph-aladin.pl?frame=get&id=Aladin.jar>

2. TOPCAT: <http://www.star.bris.ac.uk/~mbt/topcat/topcat-lite.jar>

1. Launch them on Linux (in terminal): `java -jar topcat-lite.jar`. On Windows and Mac they can be launched by double-click on a jar-file.

2. Load first catalog. In TOPCAT do: File → Load table → DataSources → Vizier Catalogue Service → All rows → By Keyword: Sugizaki (first author of the faint X-ray sources in the Galactic plane catalog, obtained with ASCA space observatory) → Search Catalogues. Then take the only found catalog in the field below and press OK to load it as a whole since it is not too large. Please make sure you loaded the catalog by choosing Graphics → Sky in the menu. You should see a bunch of points along the Galactic plane around Galactic center.

3. Load second catalog. In TOPCAT: File → Load table → DataSources → Cone Search → Keyword: Witham (first author of H-alpha emitters catalog, obtained using IPHAS survey data). We need this to get an idea of IPHAS footprint. You can download the whole catalog by emulating cone search request with big radius: RA = 0 deg, Dec = 0 deg, Radius = 200 deg → OK



The VO school: Programme (V)

EURO VO
CoSADIE Collaborative and Sustainable Astronomical Data Infrastructure for Europe

Home Program Registered Applicants Accepted Applicants Waiting List Venue
Accommodation Feedback Participant Use Cases

Event: [] Place: [] [Login]

CoSADIE VO School
Madrid,
2013 February

How did you know about the school?

[]

Have you used VO tools and services before the school?

NO
 YES

Tutorial: The Coma cluster of galaxies

How easy or difficult was the tutorial?

Very difficult
 Difficult
 Normal
 Easy
 Very easy

How useful was the tutorial?

Not useful
 Useful
 Very useful

The time allocated for the tutorial was

✓ 1h 15 m

Feedback: Results

- ✓ 33 / 35 feedback forms were gathered.
- ✓ Tutorials #1-4: averaged difficulty. Tutorial #5: difficult
- ✓ All tutorials were judged useful with enough time to work with them (except Tutorial #5).
- ✓ The school was rated as “very good” (18) and “excellent” (7) by 75% of the participants.
- ✓ The individual comments were extremely positive, stressing the usefulness of the school and the good interaction between participants and tutors.
- ✓ Participants as “VO-ambassadors”.

Feedback: Results

The image shows a screenshot of a Facebook group page for "CoSADIE VO School, Madrid 2013". The page is set to "Closed Group" and has 10 members. The members are listed in a grid format, each with a profile picture, name, location, and the date they were added to the group. The members are:

- Enrique Solano (Added by Hristo Stoyev about 7 months ago)
- Vojtěch Sidorin, Matematicko-fyzikální fakulta Univerzity Karlovy v Praze (Added by Hristo Stoyev about 7 months ago)
- Elisabeth Gall (Added by Joe Polishaw about 7 months ago)
- Olivera Latković (Added by Joe Polishaw about 7 months ago)
- Anuar Khan Ali Franco, Santander, Cantabria (Added by Joe Polishaw about 7 months ago)
- Trifon Trifonov (Added by Hristo Stoyev about 7 months ago)
- Joe Polishaw (Added by Hristo Stoyev about 7 months ago)
- Vladimir Bozhilov, Sofia, Bulgaria (Added by Hristo Stoyev about 7 months ago)
- Robert Szakáts, Junior Scientist at Konkoly Observatory (Added by Joe Polishaw about 7 months ago)

The page also features a navigation menu on the left with options like "Welcome", "News Feed", "Messages", "Events", "Photos", "Browse", "Feed Friends", "App Center", "Games Feed", "Gifts", "Music", "Notes", "Links", "Pokes", "CoSADIE VO School, Ma...", "Create a Page...", "Pages Feed", and "Like Pages". The top navigation bar includes "Home", "Find Friends", and "Enrique".