

SVOCat

Easily publishing catalogues in the VO (and web)

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²Spanish Virtual Observatory

ASTERICS

European Data Provider Forum and Training Event
Heidelberg, June 2016



SVOCat is an application intended to make easier the publication of an astronomical catalogue,

- as a **web page** and
- as a **VO ConeSearch** service.

- easy to install and configure

Our intention is not to provide a black box-like tool but a tool characterized by:

- Fast learning curve,
 - Helps to learn about what is being done
- Flexibility and versatility
 - It allows starting the installation and configuration process at different steps
 - Easy adaptation to your particular requirements

Requirements

- A web server (Apache, for instance).
- PHP
- MySQL database.

and

- Your catalogue can be seen as a single table.
- Two of the columns give RA and DEC in decimal degrees.
- You have your data as a csv file.

- First release: April 2014

First SVO Workshop on data publishing in the Virtual Observatory

First SVO Workshop on data publishing
in the Virtual Observatory

DATE	TIME	INSTRUMENT	WAVELENGTH	FLUX
2014-01-15	00:00:00	IRIS	192.4	0.000000
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2014-01-15	00:00:00	IRIS	192.4	0.000000
2014-01-15	00:00:00	IRIS	192.4	0.000000

Centro de Astrobiología
Villafranca del Castillo
Madrid, 2014 April 8 and 9

The tool has proved to be useful for very different communities

- From large consortia ...
 - CMC15 (Carlsberg Meridian Catalogue).
 - Alhambra final catalogue.
 - Gaia-ESO catalogue.
- and observatories ...
 - The Mark-I solar spectrophotometer archive.
- to small groups / individual researchers who want to publish their data in the VO
 - Shapley Supercluster Survey
 - Stars with debris disks and planets.
 - The SVO hot subdwarf archive.
 - Catalogue of Galactic PNe.
 - THROES catalogue.

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CMC15
Carlsberg Meridian Catalogue

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Coverage Map

ALHAMBRA

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ALHAMBRA: The Final Catalogue

This data server provides access to the ALHAMBRA Final Catalogue.

The ALHAMBRA (Advanced Large Monolithic Area Medium Band Robot COINTEGRATED DEEP-ELAS, GOODSS IN SDOSS and South fields using a new 0.50m-RTCC), plus the associated broadband SURF 1.1, II and IA Bands, the optical camera LAICA and the NIR instrument Omega-200. The ALHAMBRA

Further information on the project can be found at the ALHAMBRA web page.

Resources

- Data retrieval
- News
- Documentation
- Coverage Map
- Help Desk

The ALHAMBRA Data Access Service is the result of a collaboration agreement in the framework of the Spanish Virtual Observatory project supported by Research Infrastructures, project J12E18. The system is maintained by the SVO.

If you use this service in your research, please include the following acknowledgement (MIRA-ESO):

This service uses SVOcat by the SVO

archive.

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Mark-I

The Mark-I solar spectrophotometer archive

Mark-I is a solar spectrophotometer located and operated at Observatorio del Teide (Tenerife, Canary Islands, Spain) that provides precise radial velocity observations of the Sun on a star at the Potsdam KI TESSA absorption star line.

Observations extend from 1976 to 2012 with only summer campaigns from 1976 to 1983.

Resources

- Data retrieval
- News
- Documentation
- Help Desk

The SpaceTime Project ('Exploitation of Space Data for Innovative Helio- and Astrometeorology', www.spacetime.eu) has been funded by The European Helio and Astrometeorology Network (HELAS) with the mission to build on the existing European strength in the field of time-domain stellar physics. It is funded for four years (2013-2016) by the European Union under the Seventh Framework Programme (FP7).

The Mark-I Data Access Service is the result of an agreement between the CASAC and SpaceTime FP7 projects. It has been developed in the framework of the Spanish Virtual Observatory project supported by the Spanish MINECO through grant AYA 2011-14020 and the CoDAVE FP7 project Call NMP4-2002-3-3 Research Infrastructures, project J12E18.

The system is maintained by the Data Archive Unit of the Centro de Astrobiología (CAS, INTA-CSIC).

If you use this service in your research, please include the following acknowledgement in any resulting publications: "Based on data from the Mark-I Data Access Service at CAS (MIRA-CSIC)".

This service uses SVOcat by the SVO

The tool has proved to be useful for very different communities

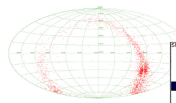
- From large consortia ...
 - CMC15 (Carlsberg Meridian Catalogue).
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 - Shapley Supercluster Survey
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 - Catalogue of Galactic PNe.
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Catalogue of Galactic PNe
New and updated catalogue of Galactic PNe

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Coverage Map



AITOFF projection. Click to see an enlarged view.

MOC resolution: 13.74" (max order=6)

- View MOC in Aladin
- Download MOC file

Images created with Aladin.
MOC file created with Soltis.

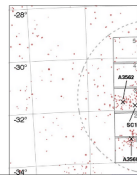
This service uses SVOCat by the SVO

Shapley Supercluster Survey ShS25 Public Data Catalogue

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Shapley Supercluster Survey: ShS25 Public Data Catalogue

The Shapley Supercluster Survey (ShS25, $z \approx 0.05$) covers a contiguous area of $260 \text{ kpc} \times 2.70 \text{ kpc}^2$ including the supercluster core. The project main aim is to quantify the influence of cluster-scale mass assembly on galaxy evolution in one of the most massive structures in the local Universe. The survey includes nine Abell clusters (A3552, A3554, A3556, A3558, A3559, A3560, A3562, A50724, A50726) and two poor clusters (SC1327-312, SC1329-313) showing evidence of cluster-cluster interactions. Optical (ggr) and near-infrared (K) imaging acquired with VST and VISTA, allow us to study the galaxy population down to $m^* \approx 4$ at the supercluster redshift. A dedicated spectroscopic survey with AAOmega on the Anglo-Australian Telescope provides a magnitude-limited sample of supercluster members with 80% completeness at $m^* \approx 1.5$.



Astron

Shapley Supercluster Survey: construction of the photometric catalogues and i-band data release

A. Mercurio^{1,*}, P. Merluzzi¹, G. Busarello¹, A. Grado¹, L. Limatola¹, C. P. Haines², Dopita^{1,3}, M. Dall'Ora¹, M. Capaccioli^{1,4}, Blot^{2,5}

DA ME SVO

Stars with Debris Disks and Planets

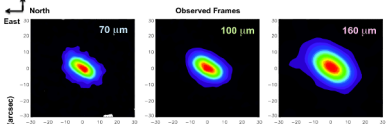
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Stars with Debris Disks and Planets:

Planetary systems are built by planets and planetesimals formed in circumstellar disks surrounding young pre-main sequence stars. Once in the main-sequence colisions of planetesimals produce small dust particles giving rise to the so-called debris disks. The mutual interaction among planets, planetesimals and debris disks, and with their host stars determines the fate of planetary systems.

Currently thousands of main-sequence stars are known to host planets and debris disks. The Solar System with its peculiarities is just one of such planetary systems. However, only few tens of stars are known to host simultaneously both planets and debris disks. Therefore, the study of these systems is particularly valuable to widen our knowledge of planetary systems and their evolution.

This page just collects some of the properties of the known, to our knowledge, solar-type stars hosting both planets and debris disk.



North
East

70 μm 100 μm 160 μm

(arcsec)

to smaller
publish the

- Shapley
- Stars with

A&A 530, A2 (2011)
DOI: 10.1051/0004-6361/201016324
© ESO 2011

A search for new hot subdwarf stars by means of Virtual Observatory tools

R. Oreiro¹, C. Rodríguez-López^{2,3}, E. Solano⁴, A. Ulla³, R. Østensen⁵, and M. García-Torres⁶

A typical configuration provides:

- Web page
 - A home page with a (brief) description.
 - A link to Help-Desk.
 - A News page.
 - A Documentation page.
 - A Coverage Map page.
 - Data retrieval form
 - highly customizable:
search fields, outputs, links, verbosity, etc.
 - Custom pages
- VO ConeSearch service.

ALHAMBRA: The Final Catalogue

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The ALHAMBRA (Advance Large Homogeneous Area Medium Band Redshift Astronomical) survey (Moles et al. 2008) has observed 8 different regions of the sky, including sections of the COSMOS, DEEP2, ELAIS, GOODS-N, SDSS and Groth fields using a new photometric system with 20 contiguous, non-overlapping, equal width (~ 300Å) filters, covering the optical range (3500Å-9700Å), plus the standard broadband NIR J, H and Ks filters. The observations were carried out with the Calar Alto (CAHA) 3.5m telescope using the wide field, 0.25 deg² FOV optical camera LAICA and the NIR instrument Omega-2000. The ALHAMBRA survey dataset represents a ~700hrs of total exposure time, gathered in between the 2005 and 2012.

Further information on the project can be found at the [ALHAMBRA web page](#).

Resources

- [Data retrieval](#)
- [News](#)
- [Documentation](#)
- [Coverage Map](#)
- [Help-Desk](#)

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If you use this service in your research, please include the following acknowledgement in any resulting publications: "Based on data from ALHAMBRA Data Access Service the at CAB (INTA-CSIC)".

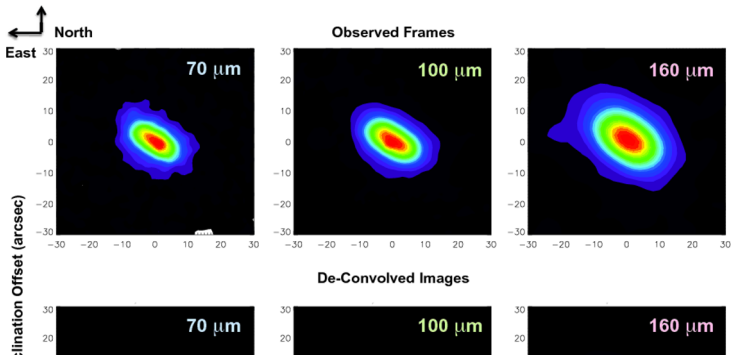


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This page just collects some of the properties of the known, to our knowledge, solar-type stars hosting both planets and debris disk.



Easy configuration

Catalogue of Galactic PNe

New and updated catalogue of Galactic PNe



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RA (?)	DEC (?)	Radius (?)	Search	Reset
18	11	60	10 results	default verb.

(Maximum Search Radius allowed: 180 degrees)

[-] Hide additional search fields

Name (?)	<input type="text"/>
Flag_PN (?)	---

• List of rejected PN candidates (previously misclassified).

First 10 results shown (146 found)

Δ (?) (arcsec)	RA (J2000) (deg)	DEC (J2000) (deg)	RA (J2000) (hh:mm:ss)	DEC (J2000) (hh:mm:ss)	GAL_LONG (?) (deg)	GAL_LAT (?) (deg)	PNG (?)	Name (?)	Lum [Malkov] (?) (Lsun)	Flag_final (?)	Referen
1456.46	18.0954	11.3936	01:12:22.90	11:23:36.96	131.13	-51.1445		PG 0109+111		P	Weidmann &
40627.53	29.49612	10.94394	01:57:59.07	10:56:38.18	148.1113	-48.6473		GR 0155+10		P	Ack
85305.09	11.76390909	-11.8719284	00:47:03.34	-11:52:18.94	118.8646	-74.709	118.8-74.7	NGC 246			
94226.21	9.31679	-13.71628	00:37:16.03	-13:42:58.61	108.371	-76.1858	108.4-76.1	BoBn 1	3700		
106553.13	353.97221	30.46844	23:35:53.33	30:28:06.38	104.2076	-29.6416	104.2-29.6	Jn 1			
135135.24	41.348613	42.551372	02:45:23.67	42:33:04.94	144.322	-15.538	144.3-15.5	A 4	100		
140718.39	351.4733	42.535	23:25:53.59	42:32:06.00	106.5584	-17.6006	106.5-17.6	NGC 7662	6200		
143260.13	58.402287	19.494061	03:53:36.55	19:29:38.62	171.3005	-25.8126	171.3-25.8	Ba 1			
143323.46	24.330937	50.469878	01:37:19.42	50:28:11.56	130.3604	-11.7389	130.3-11.7	M 1-1	7100		
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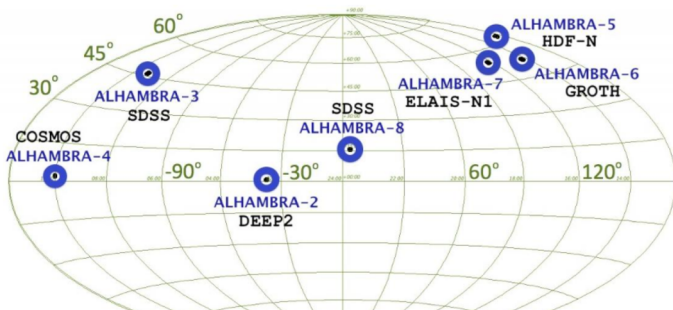
Download all results as [VOTable](#) or [CSV file](#)
Open results table in [Aladin](#) (via [JNLP/webstart](#))

Documentation

ALHAMBRA Overview

The ALHAMBRA (Advance Large Homogeneous Area Medium Band Redshift Astronomical) survey (Moles et al. 2008) has observed 8 different regions of the sky, including sections of the COSMOS, DEEP2, ELAIS, GOODS-N, SDSS and Groth fields using a new photometric system with 20 contiguous, non-overlapping, equal width ($\sim 300\text{\AA}$) filters, covering the optical range (3500\AA - 9700\AA), plus the standard broadband NIR J, H & Ks filters. The observations were carried out with the Calar Alto (CAHA) 3.5m telescope using the wide field, 0.25 deg² FOV optical camera LAICA and the NIR instrument Omega-2000. The ALHAMBRA survey dataset represents a ~ 700 hrs of total exposure time, gathered in between the 2005 and 2012.

The ALHAMBRA photometric system was specially designed to maximize the effective depth of the survey, in terms of accurate spectral-type and photometric redshift estimations, along with the capability of identification of relatively faint emission lines (Benítez et al. 2009).



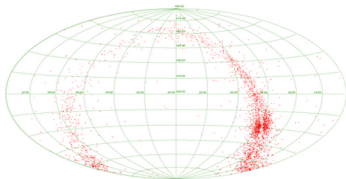
Catalogue of Galactic PNe

New and updated catalogue of Galactic PNe

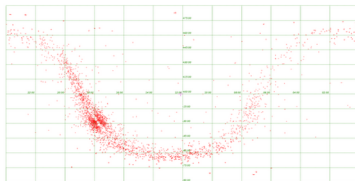


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Coverage Map



AITOFF projection. [Click to see an enlarged view.](#)



Cartesian projection. [Click to see an enlarged view.](#)

MOC resolution: 13.74' (max order=8)

- [View MOC in Aladin](#)
- [Download MOC fits file](#)

Images created with [Aladin](#).
MOC file created with [Stilts](#).

This service uses [SVOCat](#) by the [SVO](#)

Easy configuration

Shapley Supercluster Survey ShaSS Public Data Catalogue

Shapley Supercluster Survey

ShaSS Public Data Catalogue



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Virtual Observatory

- [EURO-VO Registry Home page](#)
- [INAF-DAME EURO-VO Authority Identification](#)
- [ShaSS I-band Euro-VO resource](#)
- [SVOCat VO tool Home page](#)

Instrumentation

- [VST Science portal](#)
- [OmegaCAM](#)

Science

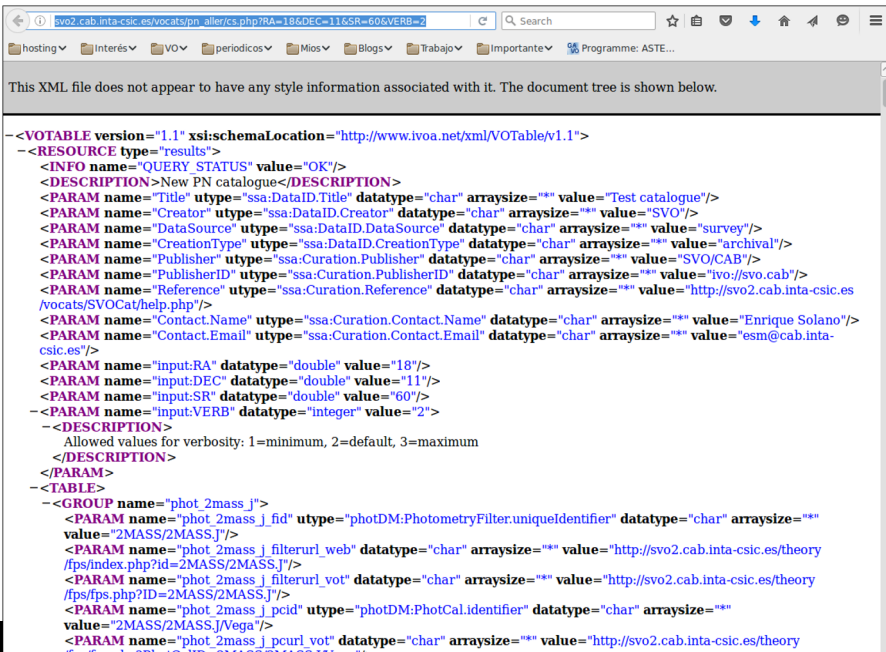
- [VST-ACCESS Research Programme Home page](#)
- [Shapley Supercluster Information](#)

Others

- [DAME \(Data Mining & Exploration\)](#)
- [INAF](#)
- [INAF OACN](#)



Easy configuration



This XML file does not appear to have any style information associated with it. The document tree is shown below.

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  <PARAM name="Creator" utype="ssa:DataID.Creator" datatype="char" arraysize="*" value="SVO"/>
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```


SVOCat Documentation

Version 0.4, Apr 2014, author: Carlos Rodrigo



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(You can see this documentation as a [single web page](#) if you wish)

Introduction

SVOCat is an application intended to make easier the publication of an astronomical catalogue, both as a web page and as a Virtual Observatory ConeSearch service.

Our intention is not to make it "magical" so that it makes all the work for you. We have tried to make it so that it's easier for you to learn about what is being done, to start the installation and configuration process at different steps if you wish, and to change the application if you need to do it for your case.

Requirements:

- A web server (**Apache**, for instance) and access to a web directory to install the files.
- **PHP**
- **MySQL** database.

(See some technical details below)

We assume that:

- Your catalogue can be seen as a single table with several columns (one for each property provided by the catalogue) and several lines (one for each catalogue entry, for instance, each observed object)
- Two of the columns give RA and DEC in decimal degrees.

and that you have your data either:

- as a csv file with different columns separated by commas. It can be a series of different csv files with the same structure if your catalogue is very big and you prefer to split it in different files.
- as a table in a mysql database.

THANK YOU!