



German Astrophysical Virtual Observatory

# *The CDS portal: working with Simbad, VizieR and Aladin*

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<http://cdsportal.u-strasbg.fr>

 Portal Simbad VizieR Aladin X-Match Other Help Search CDS Web pages

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Euro-VO ICE  
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VOTech  
OV France  
Authorities  
Strasbourg

 Centre de Données astronomiques de Strasbourg  
*Strasbourg astronomical Data Center*

 Entry point to all services   
Object/position   
Obj/position/bibcode   
Keywords, target, ...   
Object/position 

 Object database   
Catalogue database   
Interactive sky atlas 

 Catalogue database   
Keywords, target, ...   
Object/position 

 Interactive sky atlas 

**Other services**  
 X-match   Dictionary   Sesame   SimPlay 

**Latest news**

- CFHTLS final release announcement
- send VizieR's results to VO using SAMP
- Catalogs added between 13-Oct-2012 and 20-Oct-2012
- ALMA footprint in Aladin

Strasbourg astronomical Data Center (CDS):  
collection and worldwide distribution of astronomical data and related  
information, created in 1972

The CDS hosts:

- the SIMBAD astronomical database: the world reference database for the identification of astronomical objects
- VizieR: the catalogue service for the CDS reference collection of astronomical catalogues and tables published
- Aladin: interactive software sky atlas for access, visualization and analysis of astronomical images, surveys, catalogues, databases and related data

**SIMBAD** is the acronym for:

Set  
of Identifications,  
Measurements  
and Bibliography  
for Astronomical  
Data.

 CDS  
CENTRE DE DONNÉES  
ASTRONOMIQUES DE STRASBOURG

 Simbad     VizieR     Aladin     Catalogs     Dictionary     Biblio     Tutorials     Resources

### SIMBAD Astronomical Database

Queries	Documentation	Information
<a href="#">basic search</a>	<a href="#">User's guide</a>	<a href="#">Presentation</a>
<a href="#">by identifier</a>		<a href="#">Acknowledgment</a>
<a href="#">by coordinates</a>	<a href="#">Query by urls</a>	
<a href="#">by criteria</a>	<a href="#">Nomenclature Dictionary</a>	
<a href="#">reference query</a>	<a href="#">Object types</a>	
<a href="#">scripts</a>	<a href="#">List of journals</a>	
<a href="#">TAP queries</a>	<a href="#">Measurement description</a>	
<a href="#">options</a>	<a href="#">Spectral type coding</a>	
<a href="#">Display all user annotations</a>	<a href="#">User annotations documentation</a>	

**Content**

The SIMBAD astronomical database provides basic data, cross-identifications, bibliography and measurements for astronomical objects outside the solar system.

SIMBAD can be queried by object name, coordinates and various criteria. Lists of objects and scripts can be submitted.

Links to some other on-line services are also provided.

**Statistics**

Simbad contains on 2012.10.29	
6,981,750	objects
17,421,770	identifiers
274,204	bibliographic references
9,213,804	citations of objects in papers

# VizieR: most complete library of published astronomical catalogues and data tables online >10000

**CDS** CENTRE DE DONNÉES ASTRONOMIQUES DE STRASBOURG

**SIMBAD** Simbad    **VIZIER** VizieR    **Aladin** Aladin    **Catalogs** Catalogs    **INFO IDC** Dictionary    **Biblio** Biblio    **Tutorials** Tutorials    **Resources** Resources

## VizieR Service

*new* access to the [CFHTLS-T0007 catalogs \(Wide and Deep fields\)](#)

**Search Criteria**

Preferences  
max: 50  
HTML Table  
 All columns  
► [Compute](#)

Mirrors  
CDS, France

**Find catalogs among 10604 available**

[Clear](#)  [Find...](#)  
 Expand search

?

*Catalog, author's name, word(s) from title, description, etc.  
e.g.: AGN, Veron, I/239, or bibcodes...*

► [Search for catalogs by column descriptions \(UCD\)](#) ?

**Wavelength**    **Mission**    **Astronomy**

Radio	AKARI	AGN
IR	ANS	Abundances
optical	ASCA	Ages
UV	BeppoSAX	Associations
EUV	CGRO	Atomic_Data
X-ray	COBE	BL_Lac_objects
Gamma-ray	Chandra	Binaries:cataclysmic

**Search by Position across 11038 tables**

Target Name (resolved by [Sesame](#)) or Position:  
[Clear](#)  J2000  2 arcmin [Go!](#)

Target dimension:  
 Radius  Box size

?

[More about VizieR](#) [Find Catalogs](#) [Help](#)

Browsing modes: [Designation](#), [Acronyms](#), [Favorites](#), [Dates](#), [Image,spectra](#), [Kohonen](#)  
Or list [the large surveys](#)

# Aladin (Access to Library and Database Information Network)

interactive software sky atlas: visualize astronomical images,  
superimpose catalogue information

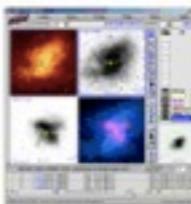
        

The Aladin Sky Atlas

New: [Aladin 7.5](#) - July 2012 - Create your own all-sky image surveys, ...[\(more\)](#)  
New: [FAQ v13](#) - June 2012

[CDS Home Page](#)

**Description** ([en français](#)) Aladin is an interactive software sky atlas allowing the user to visualize digitized astronomical images, superimpose entries from astronomical catalogues or databases, and interactively access related data and information from the Simbad database, the VizieR service and other archives for all known sources in the field ([see available data](#)).  
Created in 1999, Aladin has become a widely-used VO tool capable of addressing challenges such as locating data of interest, accessing and exploring distributed datasets, visualizing multi-wavelength data. Compliance with existing or emerging VO standards, interconnection with other visualisation or analysis tools, ability to easily compare heterogeneous data are key topics allowing Aladin to be a powerful data exploration and integration tool as well as a science enabler.  
The Aladin sky atlas is available in three modes: a Java Standalone application, a Java applet and a simple previewer.

 [Download](#)  
Aladin  
on your  
machine

 [Launch](#)  
Aladin  
applet  
([Fr](#), [US](#), [Jp](#), [In](#), [UK](#), [Ca](#))\*

 [Jump to](#)  
simple  
previewer

**Documentation** [The Aladin FAQ](#)  
[The Aladin user manual](#) (En - Fr - It - corresponds to version 6)  
Provide [my data in Aladin](#) ([help form](#))  
[The Aladin science case tutorial](#)  
[The Aladin filter manual](#)

**Demonstration** [What's new in V7](#) - a Flash video (40MB)  
[Become a beta tester](#) - exercices for discovering/testing Aladin  
[Object gallery](#) - 2 million Simbad object thumbnails created by Aladin in batch mode

**Mailing list** [Subscribe](#): just send this e-mail to [sympa@unistra.fr](mailto:sympa@unistra.fr)  
[Archive access](#)

**Plugins** Aladin can be extended by your [own java plugins](#).  
See the [Aladin plugin repository](#).



# Workshop Program

9:15 - 9:45 Introduction, Overview VO Tools

9:45 - 10:00 Topcat - analysis and manipulation of catalogues and tables

10:00 - 10:30 Exercise Session I: crossmatches, spectral access with Topcat & SPLAT

10:30 - 11:00 Coffee Break

11:00 - 12:30 Exercise Session II: cone search, calibration & visualization with Aladin

12:30 - 13:30 Lunch

13:30 - 14:00 The CDS portal: working with Simbad, VizieR and Aladin

14:00 - 15:00 Simulation Databases

15:00 - 15:30 Coffee Break

15:30 - 16:30 Accessing data archives via TAP and ADQL

16:30 - 17:00 Summary & Discussion



# Summary

- tools (Vizier, Simbad, Topcat, Aladin, Splat)
- service interoperability (SSIA, SSAP, SAMP)
- data retrieval for images, spectra, catalogues, simulation data
- table manipulation and data visualization
- astrometric calibration of images
- image handling (rgb composite, object identification)
- spectral analysis (plotting, fitting, line profile analysis & identification)
- object selection and bibliographic queries
- simulation database queries
- access data with TAP and ADQL