### Other CDS services

#### **CDS Portal**

A single entry point to search and access the different CDS services.

The CDS Portal facilitates the workflow between the services and your data with "MyCDS".

http://cdsportal.unistra.fr/

#### X-Match

A powerful cross-match service to merge by position sources from large catalogues, SIMBAD, or your own data.

http://cdsxmatch.unistra.fr/xmatch

#### **Python**

Integrate CDS services and tools in your Python workflows and notebooks, using our libraries :

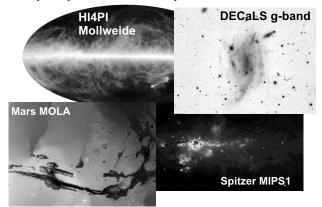
astroquery.cds, cdshealpix, mocpy, ipyaladin

#### hips2fits

Fast generation of FITS cutouts of arbitrary size and resolution from HiPS datasets, in various projections.

http://alasky.unistra.fr/hips-image-services/hips2fits

#### **Examples produced with hips2fits**



#### CDS and you

Registering to create your own MyCDS login is easy and free. You'll get instant access to:

- writing annotations on SIMBAD objects or VizieR catalogues
- better use of our X-Match service
- expanded personal storage space
- SimWatch, a service to monitor new references citing your favourite astronomical objects

#### Publish your data at CDS

You can upload your data for publication into VizieR by FTP or via a web tool. Complete your data with the appropriate description following our instructions.

The VizieR pipeline accepts:

- tabular data
- images
- spectra or time series (in FITS format)

http://cdsarc.unistra.fr/vizier.submit/

SEAL





## SIMBAD



# ALADIN

**SIMBAD** provides basic data, identifiers, measurements and bibliography for astronomical objects outside the solar system.

#### More than 10 million objects

SIMBAD is constantly updated by the CDS team with new links between **object identifiers**, published data and **bibliographical references**.

Basic data:

SH 2-87 -- HII (ionized) region

Other object types:

Rad (82,89E,F3R,686,676,668,HIG,NV5,M5RTCP,
[CPA2002],[TGC96]), MII (LBM,591), IR (IPA5,RAFGL)

ICRS coord. (ep=]2000):

Gal coord. (ep=]2000):

Radial velocity / Redshift / cz : VMAS 2 -0.1332 (~) | 600 600 90 ] D

1989.3...115,18938

100.8829 -0.1332 (~) | 600 600 90 ] D

1999.3...115,18938

100.8829 -0.1332 (~) | 600 600 90 ] D

1999.3...115,18938

100.8829 -0.1332 (~) | 600 600 90 ] D

1999.3...115,18938

100.8829 -0.1332 (~) | 600 600 90 ] D

1999.3...115,18938

#### **Sesame Name Resolver**

Resolve an object name to its position using SIMBAD, VizieR and NED.

http://cds.unistra.fr/cgi-bin/Sesame

### SIMBAD on your mobile devices

Simple and easy access





**VizieR** provides the most complete library of published astronomical catalogues (tables and associated data) with verified and enriched data, accessible via multiple interfaces.

#### 19,000 catalogues available (as of Dec. 2019)

- Data from refereed astronomical journals
- Large suveys : Gaia, AllWISE, 2MASS, SDSS, Pan-STARRS, UCAC, Kepler, UKIDSS, GALEX, etc.
- Observations logs: HST, ESO, XMM, Chandra, etc.

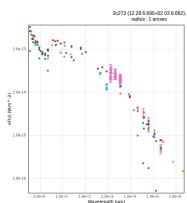
#### How to access the data?

- Simple search through keywords

http://vizier.unistra.fr/

- Advanced search through ADQL queries
  - http://tapvizier.u-strasbg.fr/adql/
- Through the **Virtual Observatory** (VO) and all its interoperable tools (TOPCAT, ...)
- Search associated data (images, spectra)

http://cdsarc.unistra.fr/assocdata/



# Mouse position: Weaking in Frequency: 2.37x-2 Offs 2.37x-2 Offs 1.06x7 aV F(0): 1.06x7 aV F(0

#### **Photometry**

VizieR computes photometry points around a given position from thousands of catalogue columns.

http://vizier.unistra.fr/sed/

The **Aladin** sky atlas suite allows to visualize digitized astronomical images, and to superimpose data from many catalogues or databases.

#### **Aladin Lite**

Easy image visualization in your browser. Fully customizable with JavaScript API.

http://aladin.unistra.fr/AladinLite/



#### **HiPS and MOCs**

More than 700 **HiPS** (**Hi**erarchical **P**rogressive **S**urveys) sky surveys and planetary maps and their associated **MOCs** (**Multi O**rder **C**overage map) are available: create your own ones and share them!

http://aladin.unistra.fr/hips/

#### **Aladin Desktop**

Access and manipulate 20,000+ VO data collections: images (FITS, HiPS), catalogues, and services.

