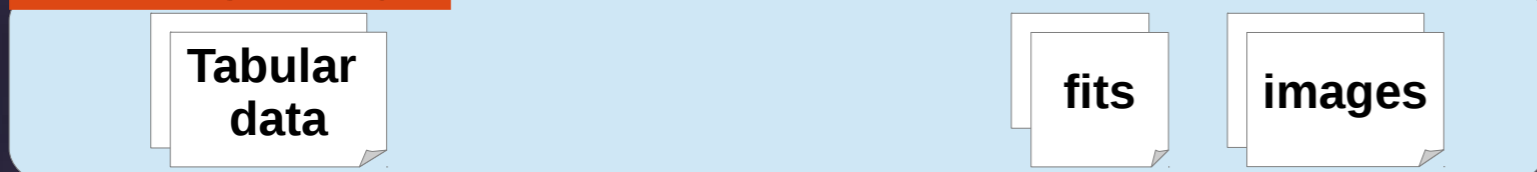


G. Landais, T. Boch, M. Brouty, S. Guehenneux, F. Genova, F. Ochsenbein,
P. Ocvirk, E. Perret, FX. Pineau, AC. Simon, P. Vannier, S. Lesteven
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VizieR provides access to the most complete library of published astronomical catalogs (data tables and associated data) available on line and organized in a self-documented database (12359 catalogs in may 2014).
The VizieR search engine uses indexation based on several criteria which requires the expertise of scientists and documentalists to ingest each catalog. These meta-data go with an efficient position search engine adapted to big data.



Catalog entry



Catalog archived



METAdata

Origin ; author, date...
Keywords : mission, wavelength, astronomical words
Acronym or usual name
Media contents : images, spectrum, cube

Data description

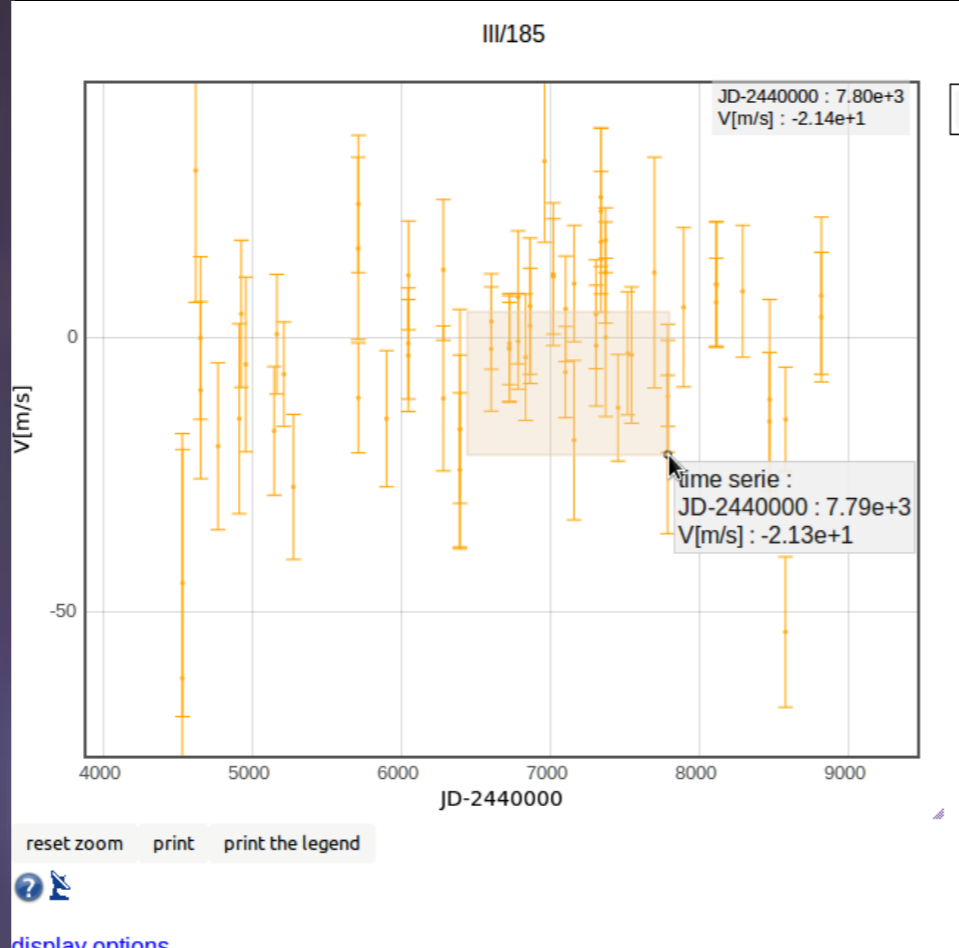
Catalogs/tables/columns description
Abstract
Acknowledgments, copyrights...

Data enrichment & indexation

Link to Simbad, VizieR, data producer, ...
Positional indexation
Photometry

Spectrum output

An intuitive web application using « widgets » result of a SQL-like query script. It includes capabilities as zoom, scaling, ...



A big data collection

- ~14,000 catalogs coming from the most popular astronomical journals : A&A, ApJ, AJ, MNRAS, ...
- Large surveys catalogs : ESA, NASA, ...
 - 2MASS (~450,000,000 records)
 - SDSS (~800,000,000 records)
 - GAIA simulation catalog (2,000,000,000 records)
 - ...
- ~400 catalogs containing spectra
- ~1150 catalogs containing time-serie (CoRoT ~300,000 timeseries)
- ~130 catalogs containing images

A close collaboration between documentalists, astronomers and computer scientists

The VizieR ingestion pipeline is operated by documentalists and astronomers for the catalogs coming from journals. The big catalogs coming from large surveys are ingested by computer scientists and astronomers.

Added value

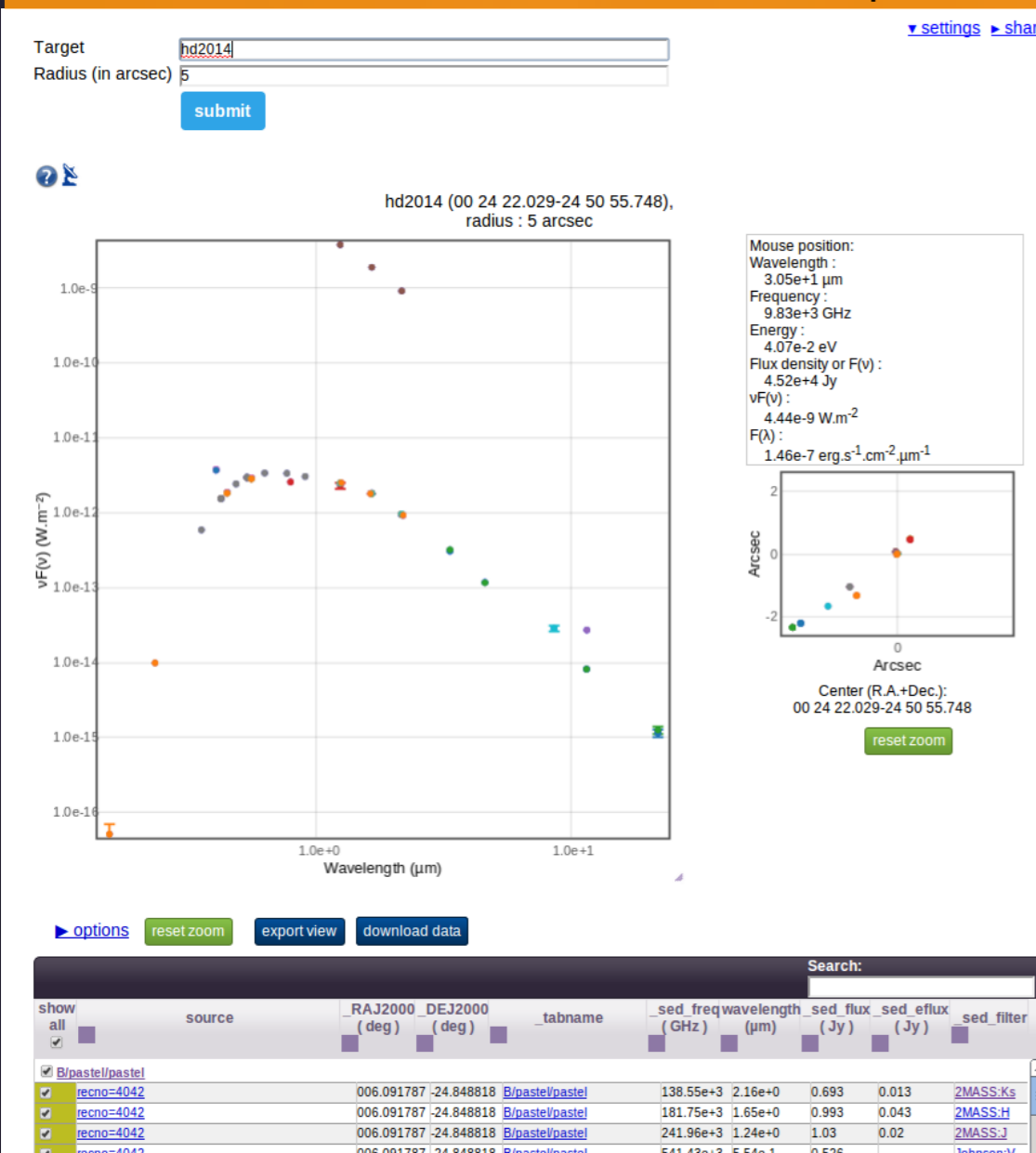
The documentalists add relevant information like URL links to external applications, links to the Simbad database or to objects from other VizieR catalogs.
The documentalists add visualization output for associated data like the spectrum or incorporate images in the VizieR result page (ex CoRoT, Herschel).

VO dissemination

The VOTable is a standard output available in VizieR and is recognized by VO-sofwares like the Aladin image viewer (CDS) or the spreadsheet TOPcat (University of Bristol). The VOTable output is a XML format including standardized definitions (UCD) which are included in the VizieR meta-data.

The VizieR data and VizieR search capabilities (like to search by position in all VizieR) are fully accessible throught the VO.

The SED output

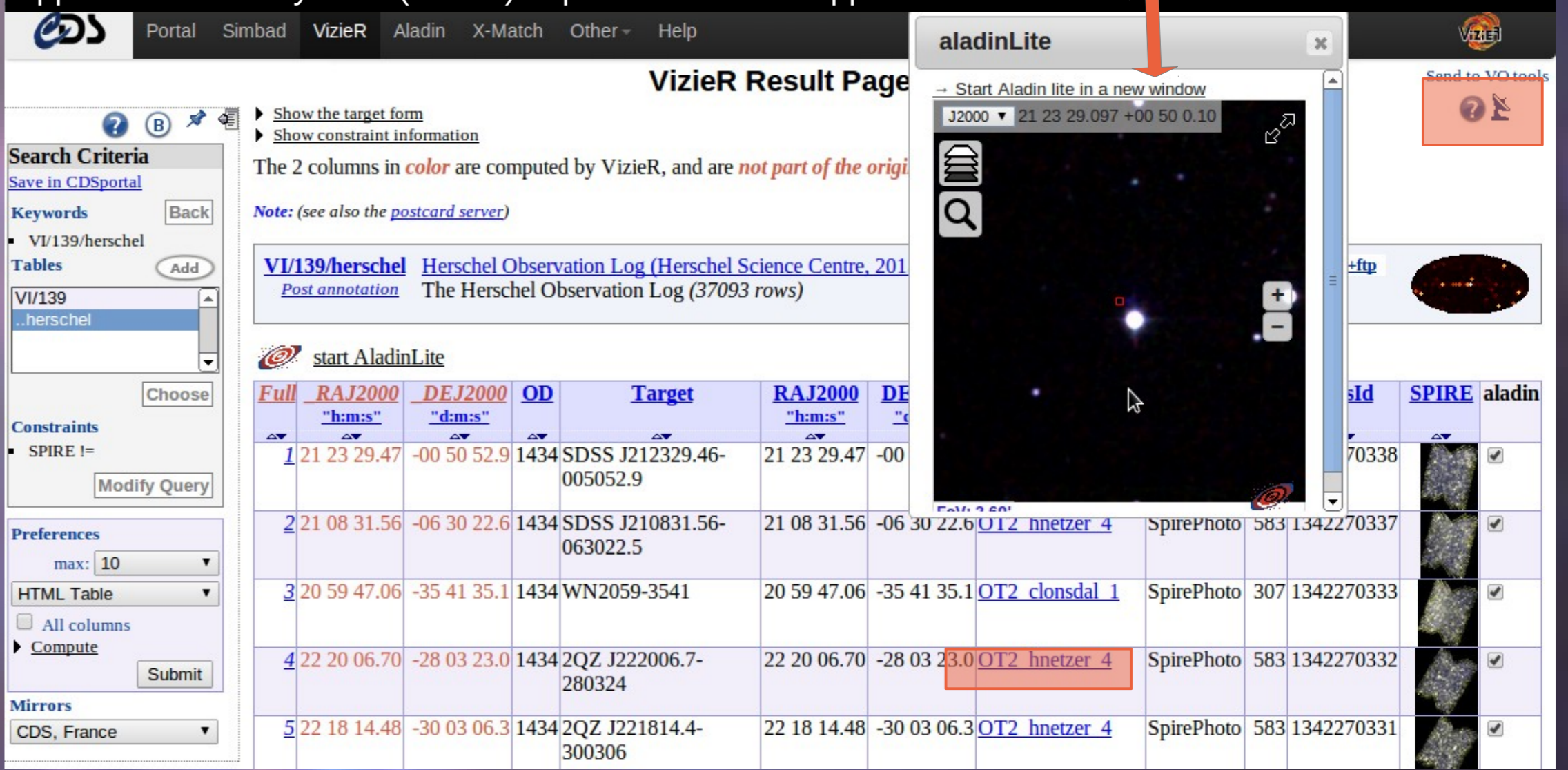


Take advantage of meta-data to compute photometry plots among ~2400 catalogs ~1000 filters

This widget integrates three linked views: a zoomable plot with photometry points, a sky chart and the VizieR tabular data.

The VizieR web application

The VizieR web application contains facility like the all-sky viewer « Aladin Lite », links to external applications or easy tools (SAMP) to put data in a VO-application



Full	RAJ2000	DEJ2000	OD	Target	RAJ2000	DEJ2000	Filter	Image
1	21 23 29.47	-00 50 52.9	1434	SDSS J212329.46-005052.9	21 23 29.47	-00 50 52.9	OT2	hnetzer_4
2	21 08 31.56	-06 30 22.6	1434	SDSS J210831.56-063022.5	21 08 31.56	-06 30 22.6	OT2	hnetzer_4
3	20 59 47.06	-35 41 35.1	1434	WN2059-3541	20 59 47.06	-35 41 35.1	OT2	clonsdal_1
4	22 20 06.70	-28 03 23.0	1434	2QZ J222006.7-280324	22 20 06.70	-28 03 23.0	OT2	hnetzer_4
5	22 18 14.48	-30 03 06.3	1434	2QZ J221814.4-300306	22 18 14.48	-30 03 06.3	OT2	hnetzer_4

VizieR collaborations with space missions :

VizieR is present in different steps of a mission :

- Collaboration with the Gaia project providing simulation GAIA catalog with all CDS capabilities.
- Collaboration with CoRoT to publish a catalog containing >300,000 time-series of exoplanets
- Provide a set of catalogs used by the XMM pipeline

A data storage adapted to big surveys

VizieR is involved in data dissemination coming from missions. The VizieR positional indexation is adapted to big volumetry : VizieR provides currently data coming from mission like 2MASS, SDSS, WISE which produces big volumetry.
This efficient data access including crossmatching capabilities with other VizieR catalogs or with SIMBAD put the CDS as a partner of major projects like GAIA .