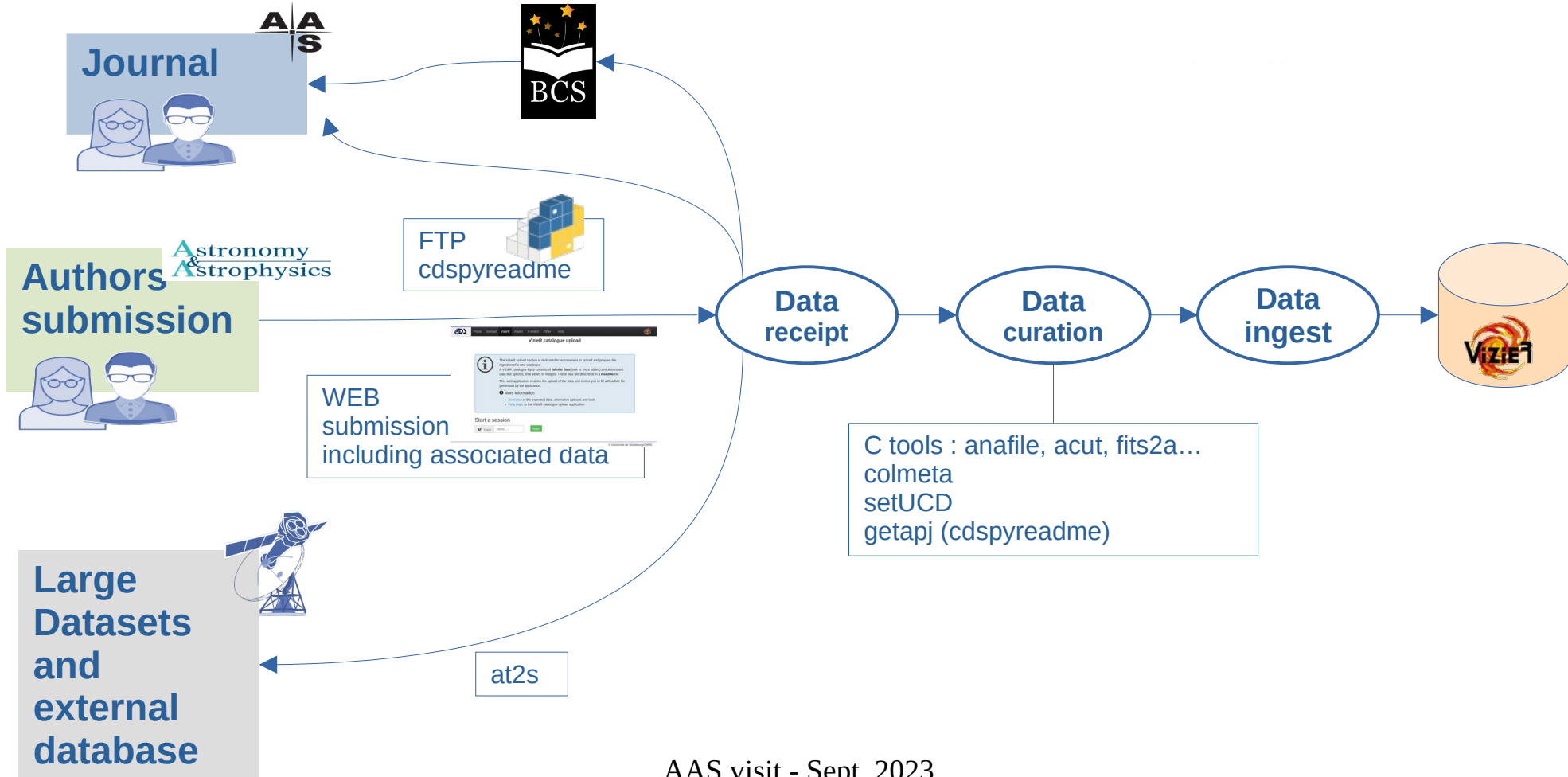
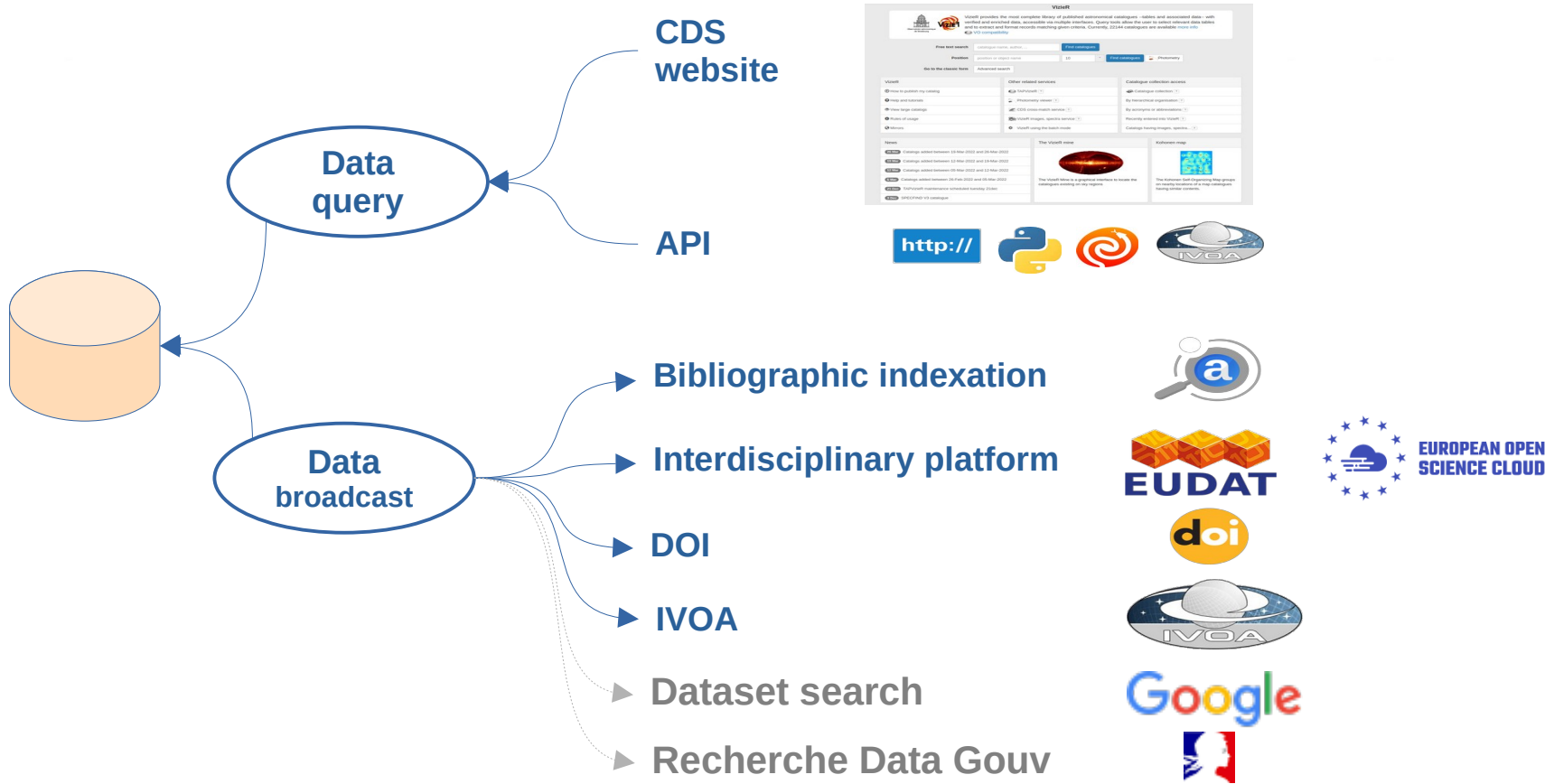


□ VizieR workflow (input)



□ VizieR workflow (output)



□ Eosc output (example)



- EOSC portal:, search “Abundances Milky Way planetary nebulae”
<https://search.marketplace.eosc-portal.eu/search/>

A screenshot of the EOSC Marketplace search results page. The header shows the European Open Science Cloud logo and the text "Browse EOSC Marketplace Resources". A search bar contains the query "Abundances Milky Way planetary nebulae" with a "Clear X" button and a dropdown menu set to "All catalogs". Below the search bar is a "Show Advanced Search" link. A navigation bar contains icons for "ALL CATALOGS", "PUBLICATIONS", "DATA", "SOFTWARE", "SERVICES", "DATA SOURCES", "TRAININGS", "INTEROPERABILITY GUIDELINES", "BUNDLES", and "OTHER". The main content area shows "66 search results All catalogs" and a "Sort By" dropdown set to "Default". A pagination bar shows page 1 of 5. The first result is a dataset titled "Abundances in extincted Milky Way planetary nebulae" with a "Data: Dataset" label. The author information is "Manea C., Dinerstein H.L., Sterling N.C., Zeimann G." and the identifier is "DOI: 10.26093/ocds/vizier.51640185". The dataset is dated 2023 and is described as "Low- and intermediate-mass (0.8M[sun])". A "Show more" link is provided. Below the title, there are several tags: "interstellar medium", "galactic and extragalactic astronomy", "Astrophysics and Astronomy", "Radial velocity", "Physics", "Planetary nebulae", "Chemical abundances", "exoplanet astronomy", "Astronomy", "Milky Way", "Galaxy", "Interdisciplinary Astronomy", "Optical astronomy", "observational astronomy", "Infrared astronomy", "Natural Sciences", and "Spectroscopy". On the left, there are filter sections for "Research step", "Type of research product", "Access right", and "Scientific Domains". On the right, there is a "Browse also" section with a link to "Providers →".

<https://search.marketplace.eosc-portal.eu/search/all?q=Abundances%20Milky%20Way%20planetary%20nebulae&standard=true&exact=false>

□ VizieR ingestion renewal



Renew a system build in 1995 (sources mainly in C/AWK/SHELL/LaTeX)

Technology migration

- Improve maintenance and put vizier for long term
- Techno: C/C+, Python, Rust , LaTeX/JSON
developpers: G.Landais, A. Flint-Vanhulle, FX.Pineau

Other updates

- (internal) Crosmatch improvement with Simbad, NED, VizieR catalogue
- Associated data (dataverse?)
- Array type , UTF8, ...
-

Main evolutions

- Improve ingestion process ergonomoy
- Improve the code to be integrated in CDS standards
eg: Global positional search: Qbox → MOC (FX-pineau)
- Improve metadata (VO and Open Science) :
 - (IVOA) eg: UCD1+ migration (A.Flnt-Vanhulle)
 - (Open sc.) UAT keywords, ORCID/Afiliation (BCS), Licences

□ VizieR ingestion renewal



Work done !

- Global position indexation is done
<https://cdsarc.cds.unistra.fr/viz-bin/moc>
- vsearch : textual search (ElasticSearch):
<https://cdsarc.cds.unistra.fr/viz-bin/cat/>
- Landing page update: citation, policy, History, Prov
- Large table architecture (qat2s, FX.Pineau)
- Data Origin in VO output
- New SED viewer
- Data dissemination
 - Registry update (mocs, doi, uat,..)
 - DOI workflow blocked with mnras and other journals ...
- Data curation tools:
 - UCD1+ resolver
 - Available <https://cds.unistra.fr/ucd-finder/beta/>
 - Internal usage (VizieR adapted) using a VI interface
 - ReadMe description: colmeta

<https://cdsarc.cds.unistra.fr/viz-bin/cat/J/ApJS/262/21>

□ MRT format



MRT in astropy

- cdspyreadme updates (pypi)
- MRT is in the astropy format: to read & write tables !

```
from astropy.table import Table
import numpy as np
```

```
url = "https://vizier.cds.unistra.fr/viz-bin/asu-tsv?-source=J/ApJ/614/167"
```

```
ori_table = ascii.read(url , data_start= 42)
```

```
ori_table.write("tmp.mrt", format="mrt", overwrite=True)
```

```
>>> astropy.table.Table.w
Format      Read Write Auto-Identity Deprecated
-----
ascii       Yes   Yes   No
ascii.aastex Yes   Yes   No
ascii.basic Yes   Yes   No
ascii.commented header Yes Yes No
ascii.csv   Yes   Yes   Yes
ascii.ecsv  Yes   Yes   Yes
ascii.fast_basic Yes Yes No
ascii.fast_commented header Yes Yes No
ascii.fast_csv Yes Yes No
ascii.fast no header Yes Yes No
ascii.fast_rdb Yes Yes No
ascii.fast_tab Yes Yes No
ascii.tab   Yes Yes No
asdf       Yes Yes Yes
fits       Yes Yes Yes
hdf5       Yes Yes Yes
jsviewer   No Yes No
pandas.csv Yes Yes No
pandas.html Yes Yes No
pandas.json Yes Yes No
parquet    Yes Yes Yes
votable    Yes Yes Yes
aastex     Yes Yes No
csv        Yes Yes No
html       Yes Yes No
ipac       Yes Yes Yes
latex      Yes Yes No
mrt        Yes Yes No
rdb        Yes Yes No
```





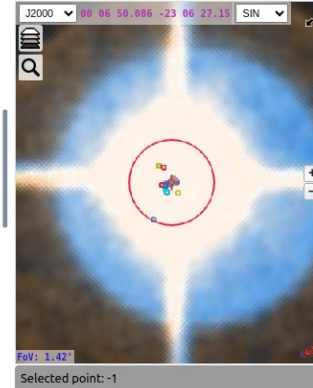
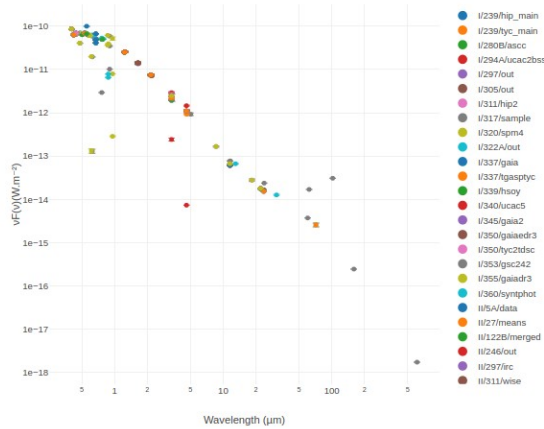
Documentation - Query VizieR photometry using API

Target:

Radius (in arcsec):

2D 3D

Spectral energy distribution



Wavelength: Infinity μm
 Frequency: 0 GHz
 Energy: 0 eV
 Flux density or $F(\nu)$: 0 Jy
 $vF(\nu)$: 0 $\text{W}\cdot\text{m}^{-2}$
 $F(\lambda)$: 0 $\text{ergs}\cdot\text{s}^{-1}\cdot\text{cm}^{-2}\cdot\mu\text{m}^{-1}$

Showing 1 to 319 of 319 entries (from 319 in total)

<input checked="" type="checkbox"/>	RAJ2000 (deg)	DEJ2000 (deg)	tabname	ID	time (TCB/barycenter)	etime	sed_freq (Ghz)	sed_flux (Jy)	sed_eflux	sed_filter	
<input checked="" type="checkbox"/>	I/239/hip_main										
<input type="checkbox"/>	001.7086927520	-23.1075398847	I/239/hip_main	link		0.0	541.43e+3	12.2		JohnsonV	
<input type="checkbox"/>	001.7086927520	-23.1075398847	I/239/hip_main	link		0.0	563.63e+3	12.1	0.0	HIP-VT	
<input type="checkbox"/>	001.7086927520	-23.1075398847	I/239/hip_main	link		0.0	713.28e+3	8.75	0.03	HIP-BI	
<input type="checkbox"/>	001.7086927520	-23.1075398847	I/239/hip_main	link		0.0	745.75e+3	11.6	0.0	HIP-Hq	
<input checked="" type="checkbox"/>	I/239/hyc_main										
<input type="checkbox"/>	001.7086952788	-23.1075369192	I/239/hyc_main	link		0.0	541.43e+3	12.2		JohnsonV	

<http://cdsarc.cds.unistra.fr/sed/alpha/?-c=HD204>

AAS visit - Sept. 2023