Python and Javascript developments for accessing data collections.

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Matthieu Baumann
Thomas Boch

☐ Outline

- astroquery.cds

  - Description and how it works

  - Demo

  - Future improvements

- A new data collections discovery widget for web portals.

  - What is it ?

  - Demo

Astroquery.cds

- A new astroquery module

  – Link to the doc here

- Merged into the master branch on July 23

  – Available for the next release v0.3.9

  – Dependencies

    - astropy/regions

    - astropy-healpix and MOCPy

Astroquery.cds

- Python API to retrieve data collections :

  - in a region of interest (circle, polygon, MOC)

  - matching specific meta-data constraints.

    - Examples :

      - Get the collections having a MOC covering at least 30 % of the sky
      - Retrieve all HST collections
      - Get the collection with a specific bibcode

- Query the CDS MOCServer

Astroquery.cds

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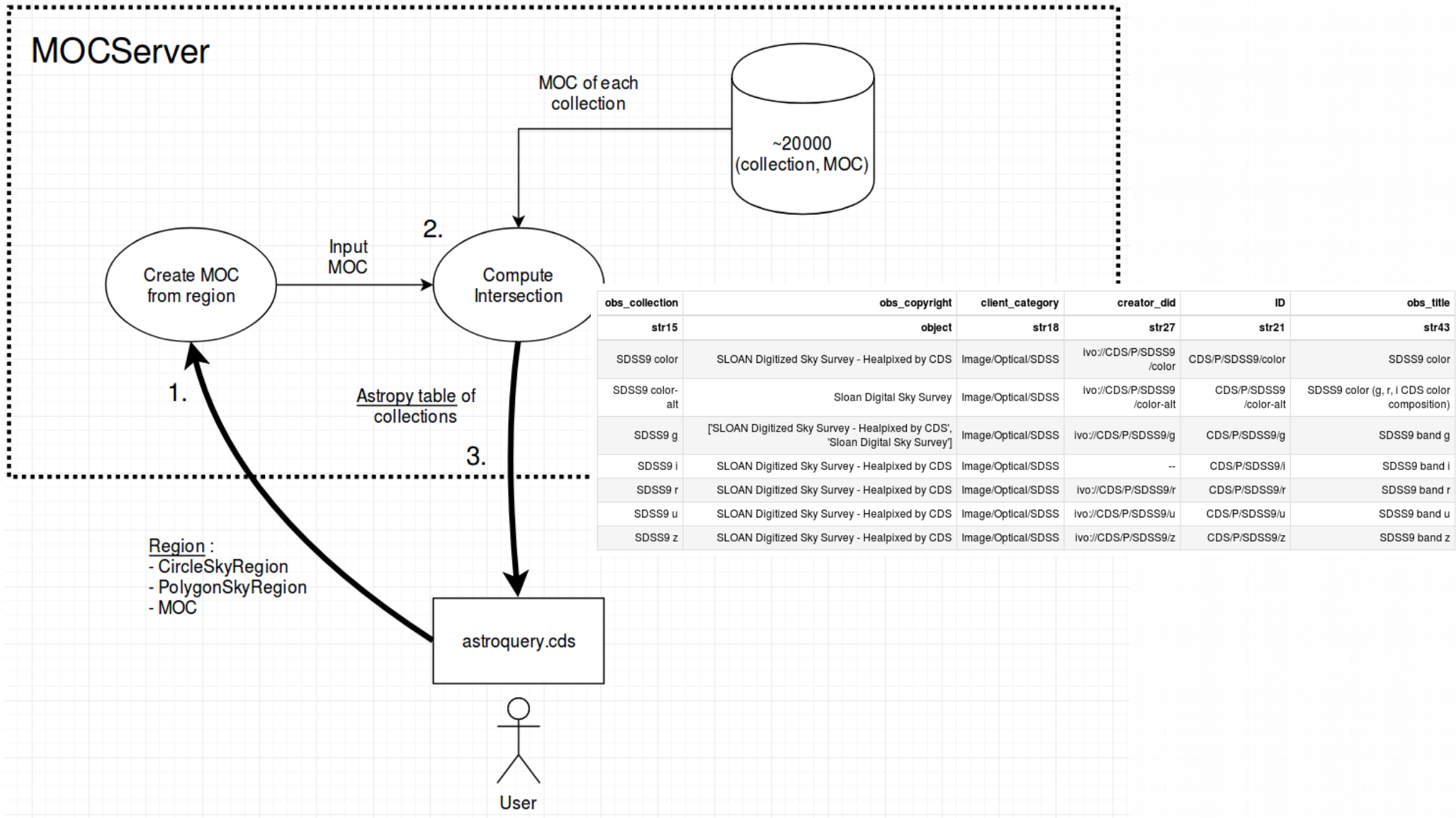
Notebook example

Examples of notebooks using astroquery.cds here and here

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Things to be done in the future

- Integration of MOCs in astropy/regions :

  - Update astroquery.cds to take MOCSkyRegion objects

- Update astroquery.Simbad/VizieR to add a method for querying them by a MOC.

New discovery widget for web portals

- Enables the user to search for a collection and access it in the web portal

  - Similar to the discovery tree in Aladin Desktop

  - Generic self-contained widget embeddable in different web portals (Aladin Lite, Firefly, …)

- Written in Typescript + VueJS web framework

Demo

- Github repo : https://github.com/cds-astro/discovery-widget