Accéder aux données*

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* Accessing the Data

Gaia Data Release 1

- 1 B of stars with positions and G magnitudes
- 2 M of TGAS stars with positions, parallaxes and proper motions
- Lightcurves of a subset of RR Lyrae (2595) and Cepheid (599) variables
- 2152 ICRF quasars with positions and G mag.
- pre cross-matched tables between Gaia DR1 and large catalogues

Gaia Data Release 1

- starting from 14 September 2016
- available via Gaia Archive and partner data centres

- soon at VO-Paris
- demos on querying and retrieving data from Gaia Archive

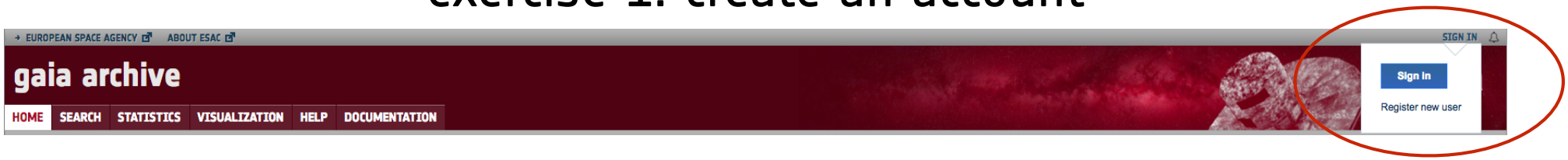
Astronomical Data Query Language

- is a flavour of SQL for astronomers to access databases via TAP
- is an IVOA standard: www.ivoa.net/documents/latest/ADQL.html
- provides rich geometry data types/functions
  - BOX, CENTROID, CIRCLE, POINT, POLYGON and REGION
  - CONTAINS and INTERSECTS
  - COORDSYS, COORD1, COORD2, AREA and DISTANCEC
- Nicolas introduces SQL/ADQL...

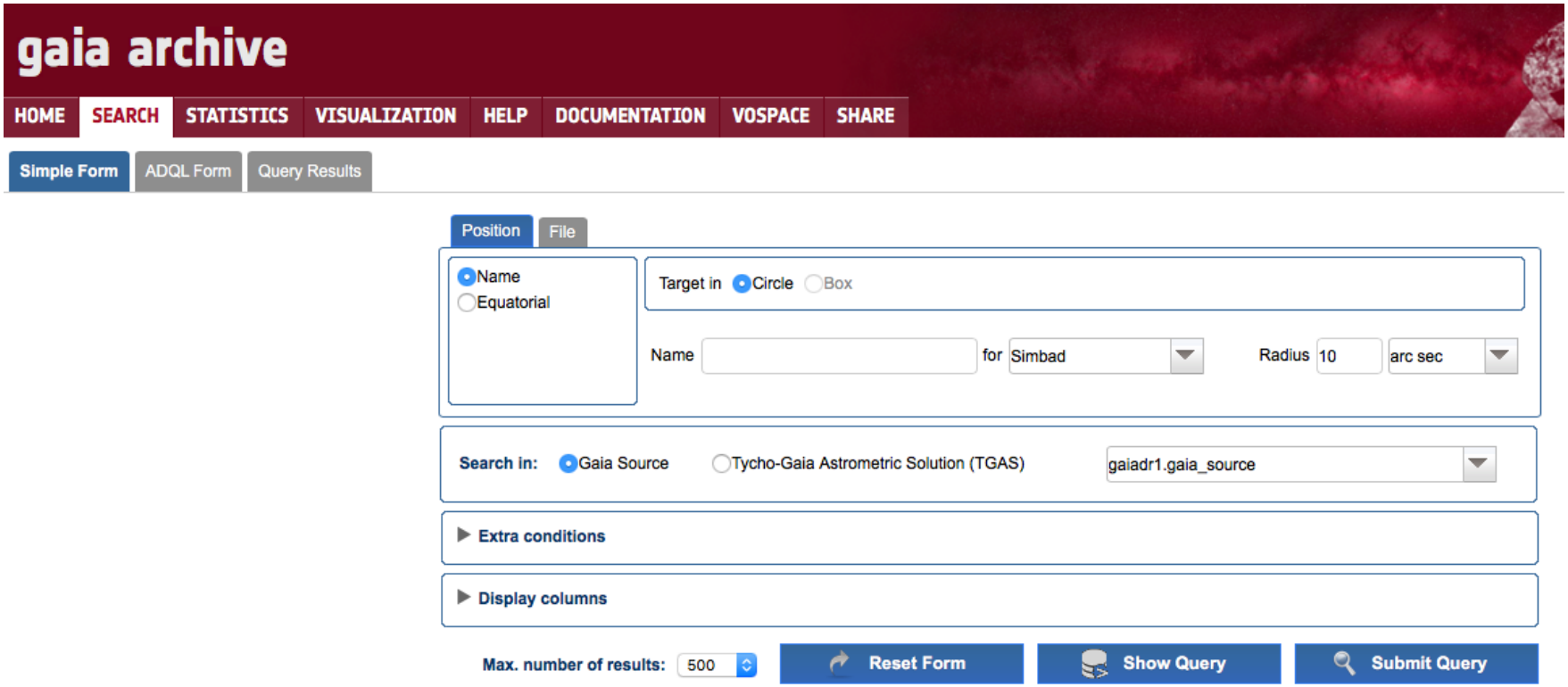
Demo

archives.esac.esa.int/gaia

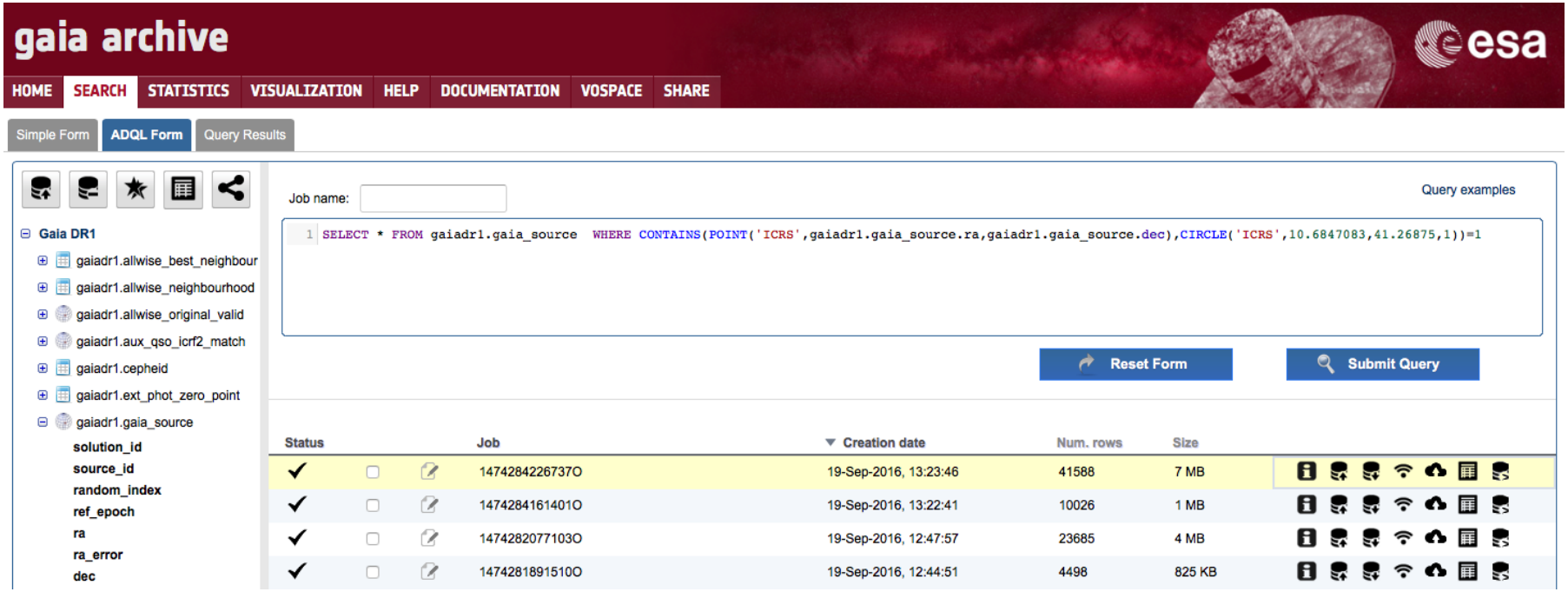
exercise 1: create an account



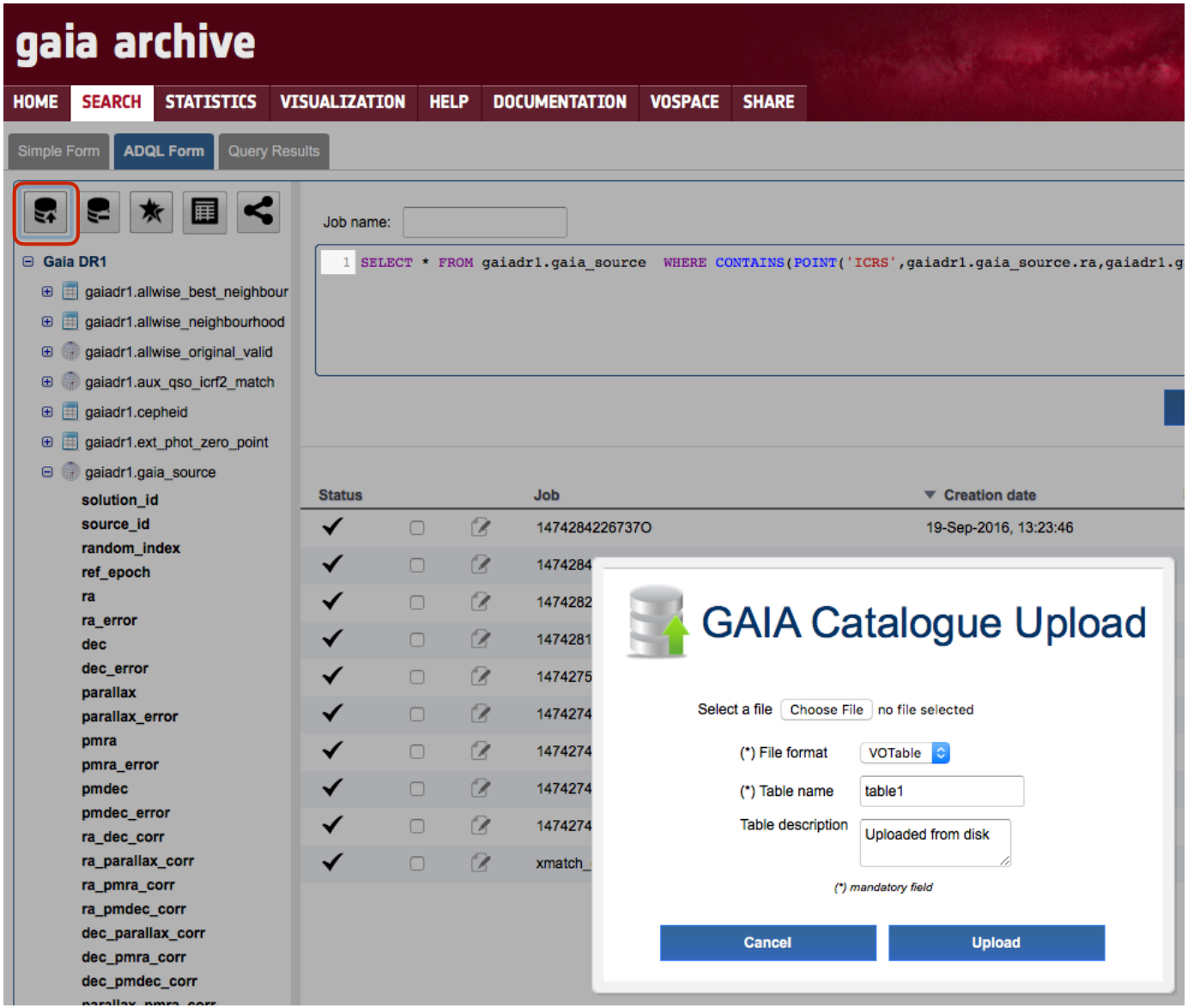
exercise 2: search with Simple Form



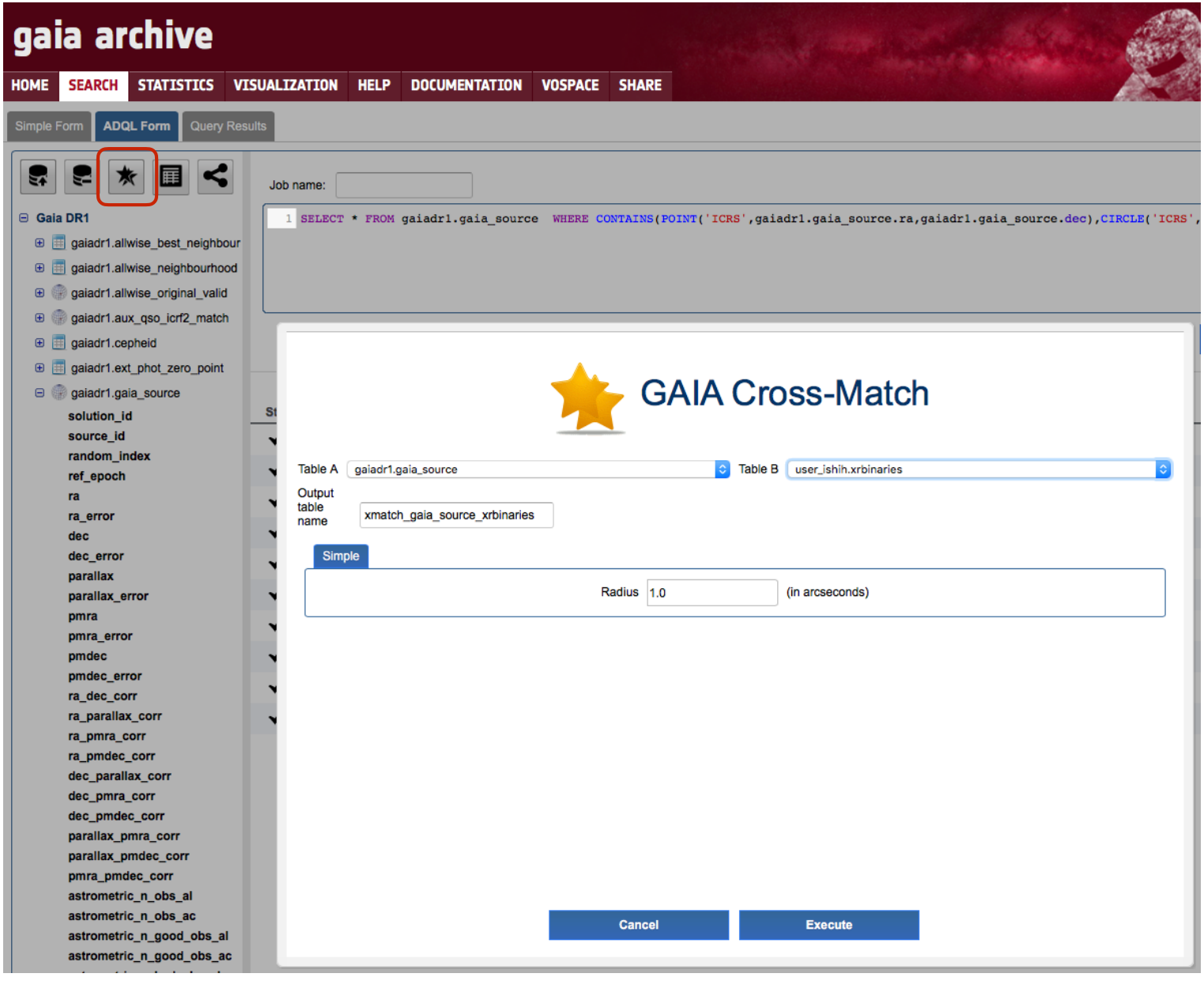
exercise 3: search with ADQL Form



exercise 4: upload personal data



exercise 5: cross-match two tables



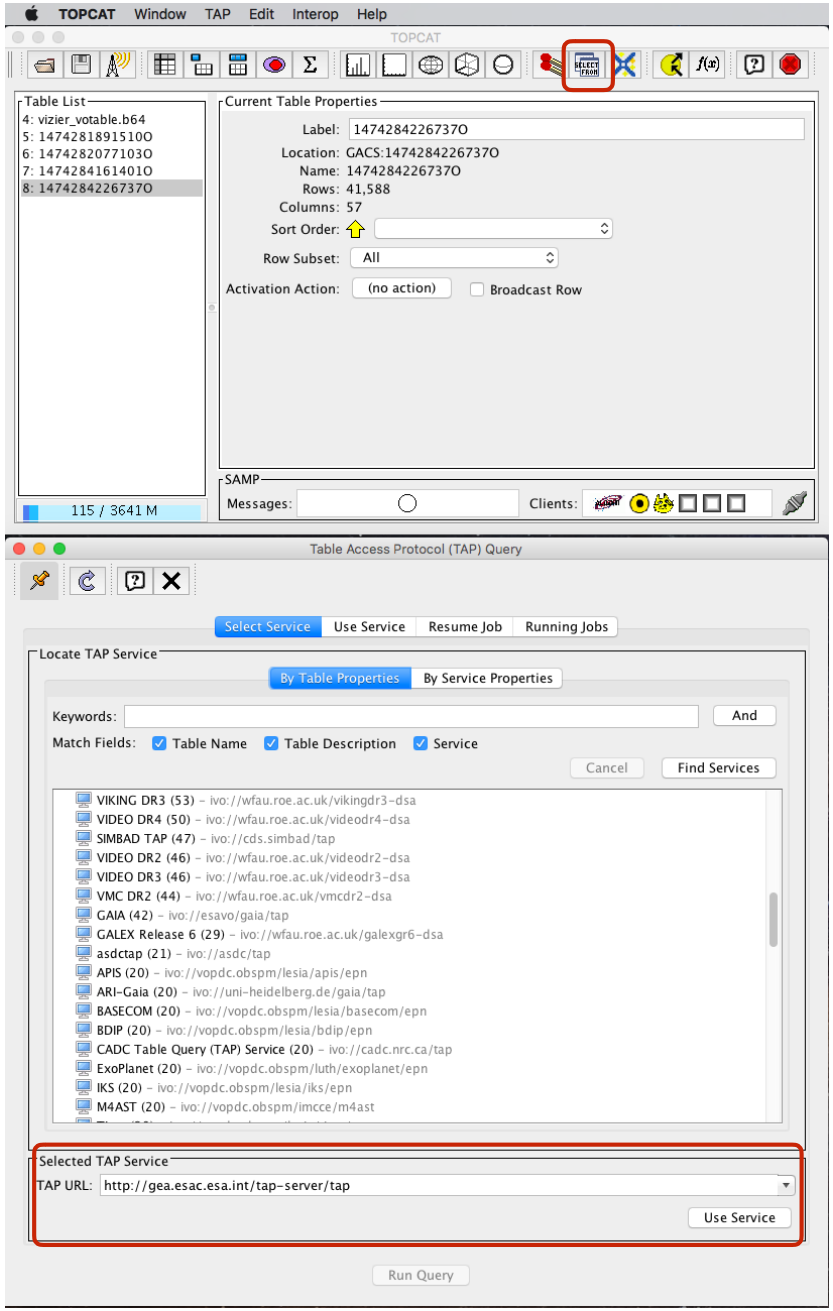
Using applications

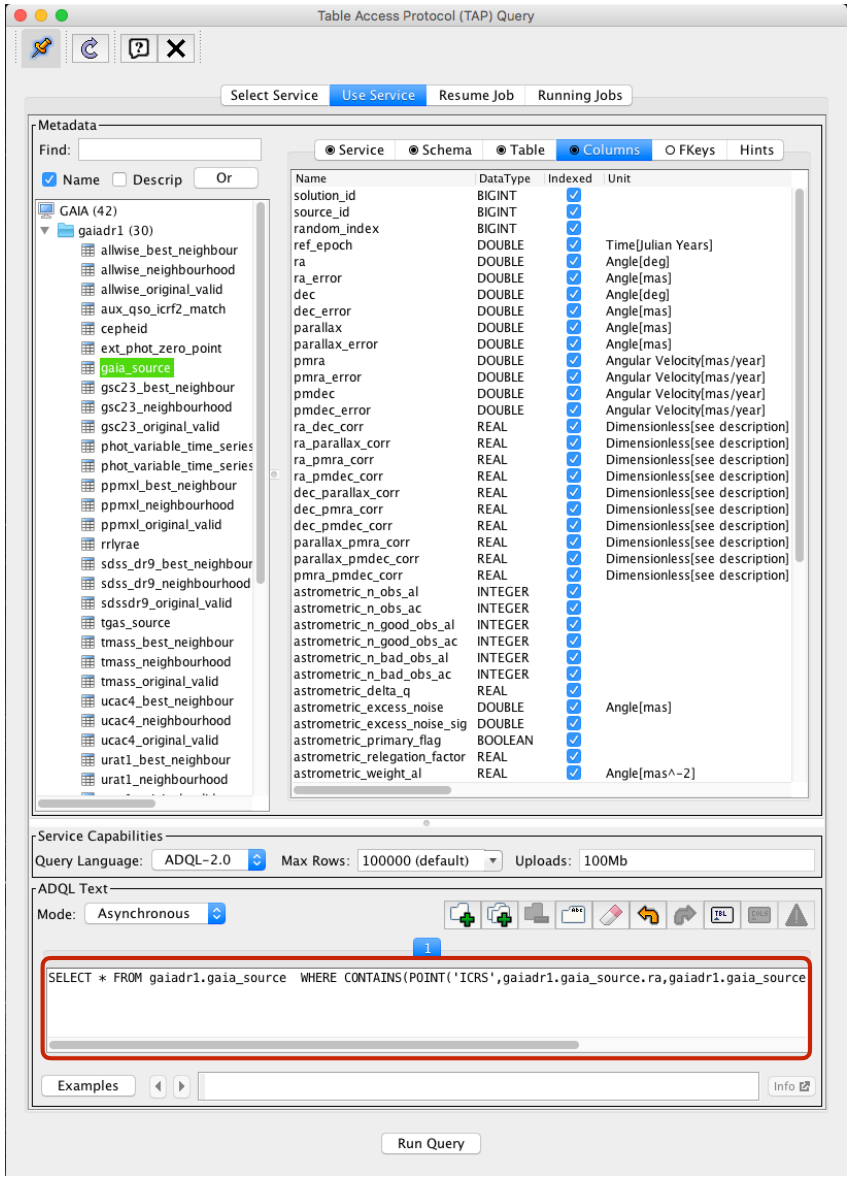
TOPCAT

TAP service entry:

http://gea.esac.esa.int/tap-server/tap

exercise 6:
use TAP service in Topcat





Advanced

- integrating **The Archive** into your research work flow with open source techniques
- W3C standard, Http connection with RESTful interface
- IVOA standards: www.ivoa.net
  - Table Access Protocol (TAP)
  - Universal Worker Service (UWS)
  - VOTable, VOSpace,...
- neutral to platforms/languages
- Gaia tools/apis have already appeared on Github
- After DR1, managing/manipulating data locally will become trickier...