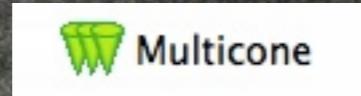


MOC use case: remote cross-match

(Thomas Boch, Mark Taylor, Pierre Fernique, Mark Holliman)

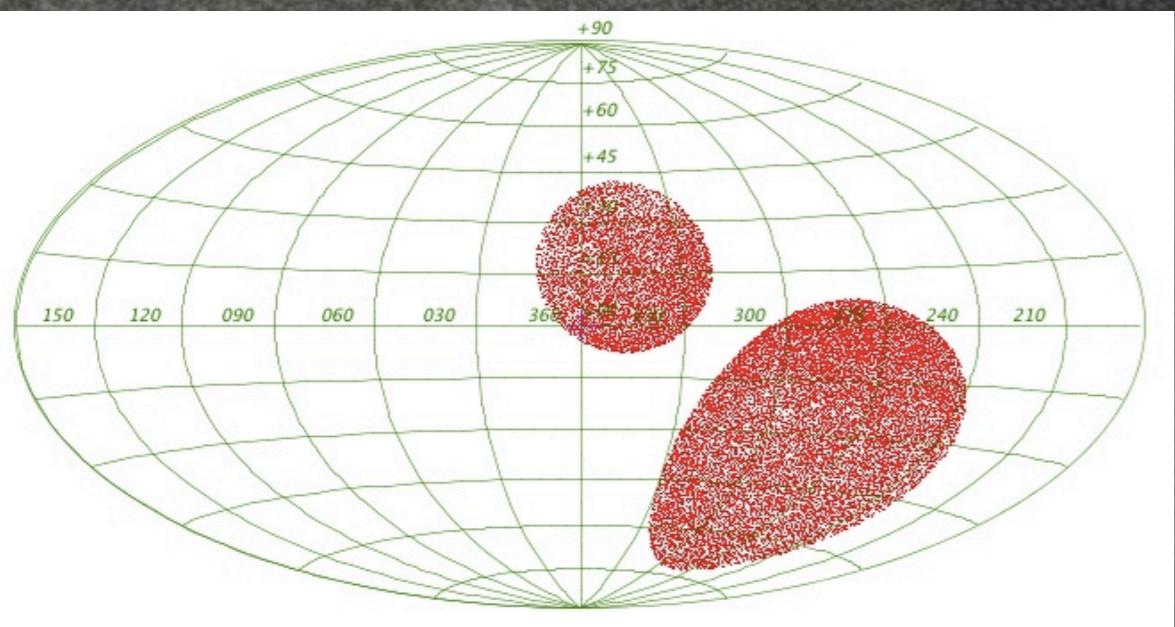
Technology Forum Strasbourg, Euro-VO ICE, 10 May 2012

Multicone in TOPCAT

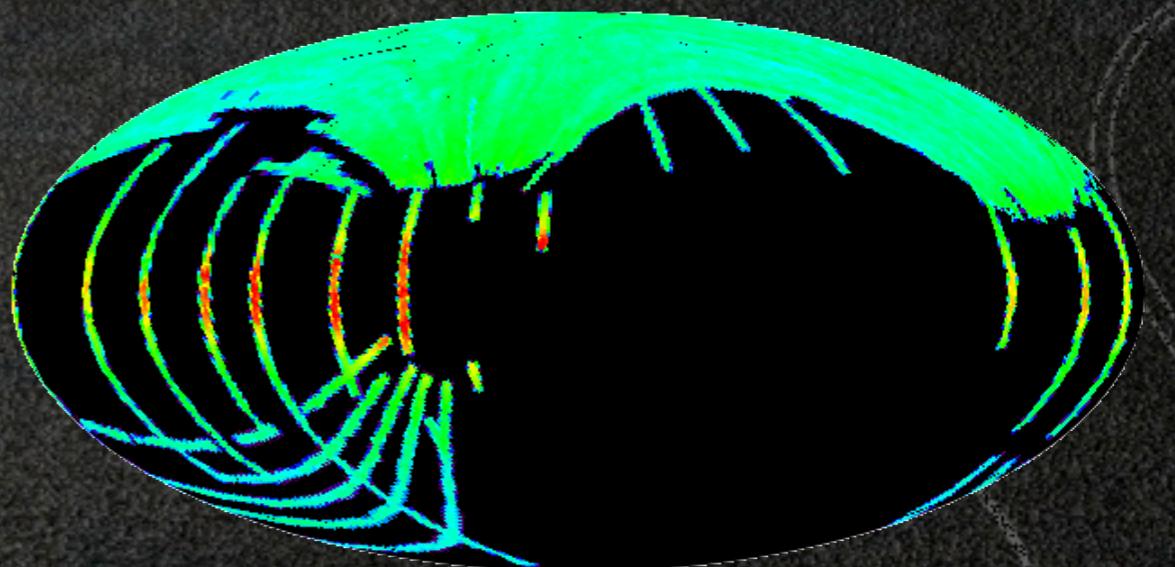


- Popular feature
 - Positional cross-match between a local table and a remote one
 - Multiple cone search queries
- Caveats:
 - one query per row of the local table
 - in some cases, many unnecessary queries

Local table
(22k rows)



Cone search service
(SDSS DR7)



getMoc service

- Provides the global sky coverage (MOC) for a cone search resource
 - *Input:* cone search base url (+ nside)
eg: <http://alasky.u-strasbg.fr/footprints/getMoc?baseUrl=http%3A%2F%2Fvizier.u-strasbg.fr%2Fviz-bin%2Fvotable%2F-A%3F-source%3DIII%2F105%26>
 - *Output:* required MOC (serialized in FITS) or 404 error
- Available MOCs :
 - All 7,000+ registered VizieR cone search services (<http://alasky.u-strasbg.fr/footprints/tables/vizier/>)
 - Some cone search services managed by ROE (MOCs computed and provided by Mark Holliman) : UKIDSS, SDSS DR8, VISTA VHS

Demo

Multiple Cone Search Parameters

Cone Search URL: <http://vizier.u-strasbg.fr/viz-bin/votable/-A?-source=II/294&>

Input Table: 1: mytable.vot

RA column: _RAJ2000 degrees (J2000)

Dec column: _DEJ2000 degrees (J2000)

Search Radius column: 1.0 degrees

Verbosity: 2 (normal)

Output Mode: New joined table with best matches

Parallelism: 5 Error Handling: abort

- Feature available in TOPCAT pre-release
(<ftp://andromeda.star.bris.ac.uk/pub/star/topcat/pre/>)
- makes use of VizieR tables MOC, in order to discard positions without potential counterparts