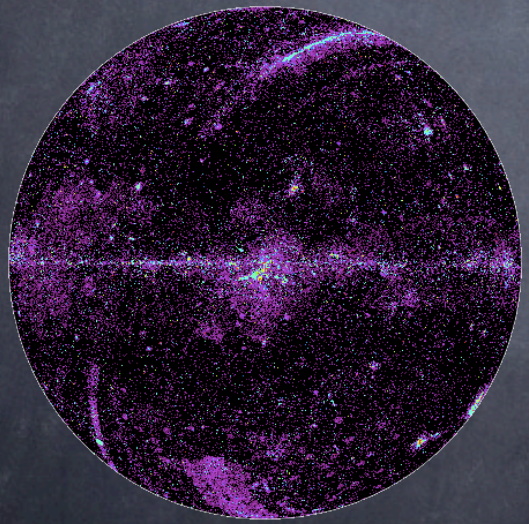
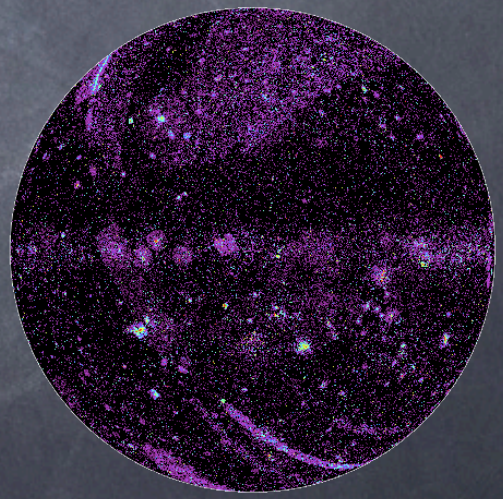
Simbad bibliographical map and beyond

Mining CDS data





Thomas Boch [CDS]

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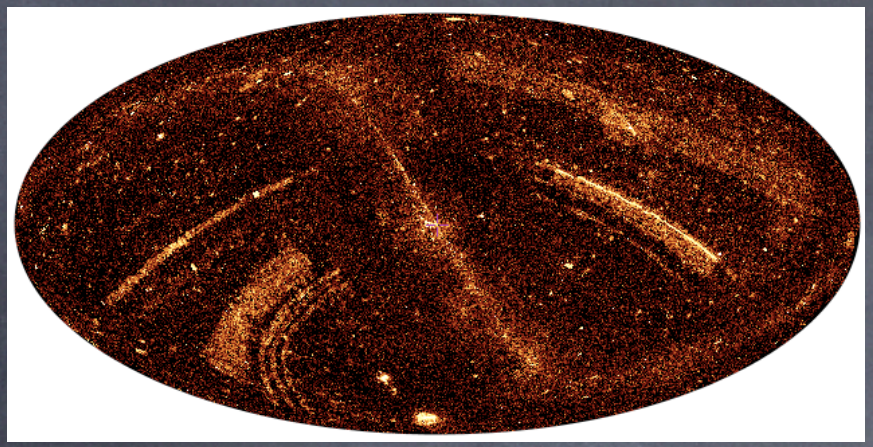

Bibliographical map

- Density map of Simbad objects on the sky (weighted by the number of references for each object)
- Gives a global view of how Simbad sources/ references are distributed on the sky
  - point out dense and/or deeply studied regions

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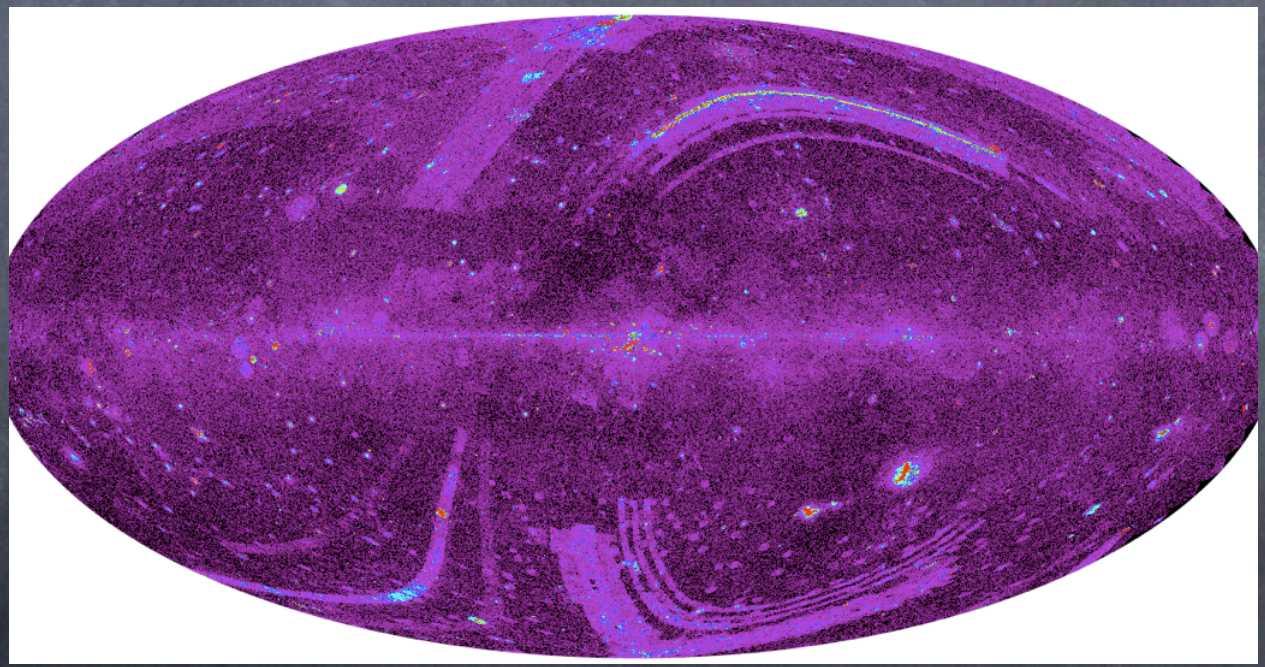
Technical details (1/2)

- Map dynamically generated as HEALPIX files
  - each "pixel" has the same surface on the sky
  - can be visualized in any tool supporting Healpix



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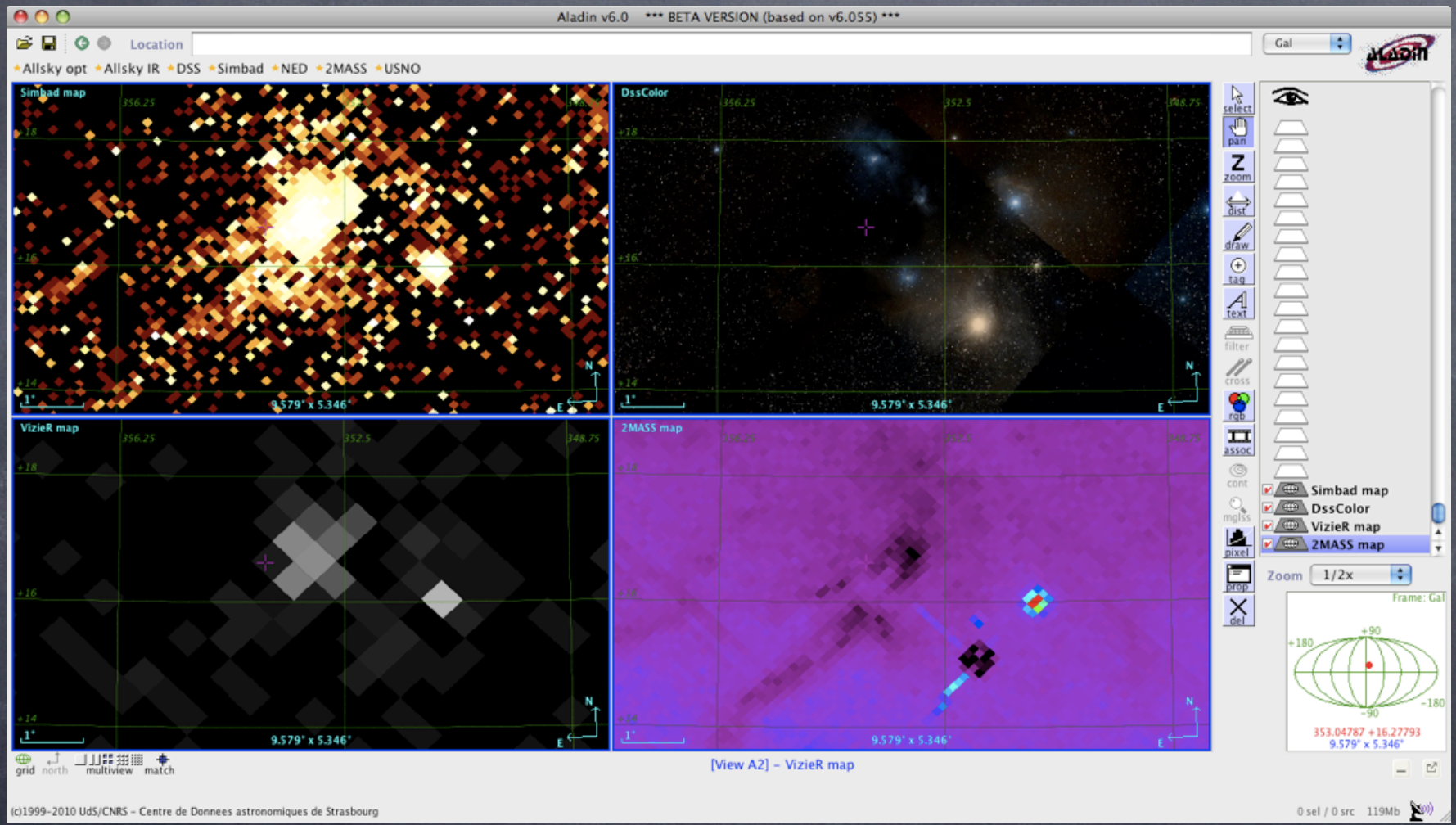
Technical details (2/2)

- User can choose resolution (NSIDE) and set some constraints to filter out sources of interest (by object type, color, magnitudes ranges)
  - Reduced view of Simbad data (RA, DEC, B, V, J, H, K, ...)
    - extracted from simbad database
    - converted to COLFITS (column-oriented storage, provided by STILTS) for fast selection by criteria

Demo



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Conclusions

- Healpix density maps allow to
  - explore available data
  - compare data at a global level
  - compare coverage of different catalogues
- Next step
  - compute intersection between different surveys/ catalogues/etc coverage maps
  - query catalogues by a set of healpix numbers
- Link with footprint effort at IVOA level