Minting DOIs for CDS HiPS

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Outline

- Motivations
- DOI minting process
- Landing page
- Open questions

Motivations

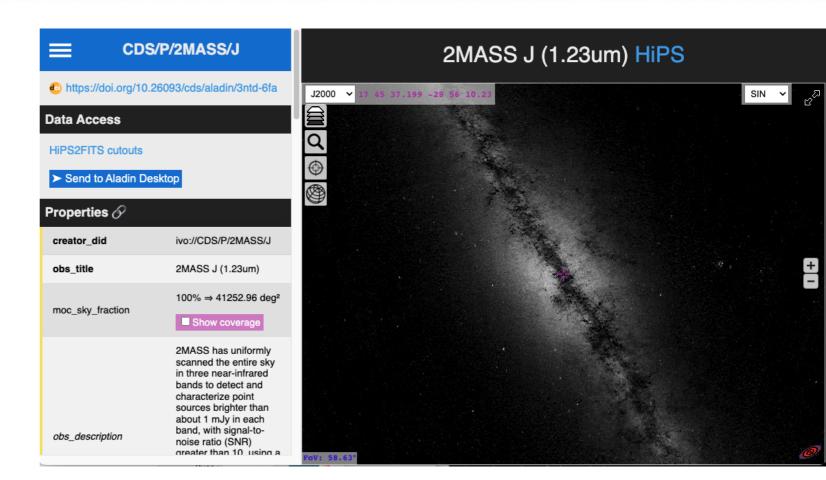
- HiPS: a data product of its own
 - Astronomers might want to cite the HiPS they use
- DOI a step closer to FAIRness
 (O'Toole, Tocknell, FAIR standards for astronomical data)
- Why not IVO ID?
 - ==> not well known
 - ==> no established mechanism for long-term persistency

Minting overall process

- Semi-automatic process
- Metadata XML document, following DataCite, automatically created from properties file for each HiPS published HiPS at CDS
- DOI string created and added to properties file (keyword hips_doi)
- Actual DOI minting through a script with manual validation
- Currently: 4 HiPS with DOIs (we test the process)
 - eg: https://doi.org/10.26093/cds/aladin/3ntd-6fa
- Goal: DOI for all 500+ HiPS managed and published by CDS

Landing page

- Dynamically built from properties file
- HiPS visualized with Aladin Lite v3
- Metadata in various formats:
 - schema.org DataSet (JSON-LD)
 ==> allows to be findable in Google
 Dataset search
 - Dublin Core
 - OpenGraph



- Link to generate cutout from HiPS2FITS
- Button to view HiPS in Aladin Desktop via SAMP
- Good rating on Fair checker
- Existing HIPS can be upgraded to this new landing page with latest Hipsgen beta

Open questions

- Licencing
 - Combination of original data set licence and CDS own licence (ODbL if possible)
 - How to properly describe this in a machine-readable way?
- HiPS can be very large, we might consider deleting older versions of surveys
 - How acceptable is it to (rarely) delete a HiPS and create a tombstone page pointing to a new version?
 - How acceptable is it to slightly change the data (RICE compression of FITS tiles) and keep the same DOI?