
ViaLactea Data for Visual Analytics

A Data Management Plan created using DMPTool

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ViaLactea Data for Visual Analytics

Products of research

The ViaLactea Visual Analytics (VLVA) will consume a variety of surveys to analyze star formation regions within the Milky Way Galactic Plane in different wavelength.

Currently the following surveys are made accessible for analysis, the surveys can be classified into the following categories:

- Near-InfraRed: UKIDSS (<http://www.ukidss.org>) and VISTA VVV (http://mwm.astro.puc.cl/mw/index.php/Main_Page).
- Mid-InfraRed: The GLIMPSE (<http://www.astro.wisc.edu/glimpse>), WISE (<http://wise.ssl.berkeley.edu>) and MIPS GAL (<http://mipsgal.ipac.caltech.edu>).
- Far-InfraRed: HERSCHEL Hi-GAL (<http://hi-gal.ifs-roma.inaf.it>).
- Sub-millimetre continuum: ATLASGAL (http://atlasgal.mpifr-bonn.mpg.de/cgi-bin/ATLASGAL_DATABASE.cgi) and JCMT (<http://www.eaobservatory.org/jcmt/science/legacy-survey/>).
- Molecular and Atomic Line Surveys: the Galactic Ring Survey (<http://www.bu.edu/galacticring>) (GRS) and the International Galactic Plane Survey (<http://www.ras.ualgary.ca/IGPS>) (IGPS)
- Radio continuum: the CORNISH (<http://www.leeds.ac.uk/Cornish>) and MAGPIS (<http://third.uclnl.org/gps/>).
- Molecular Masers: the Methanol Multi-Beam survey (<http://www.jb.man.ac.uk/research/methanol>) (MMB)

Each survey retains its own data policy and only the public part will be made available to the VLVA users.

Products of these analysis will be published in the major journals detailing the pipelines and workflows to obtain them and will be made publicly available within the ViaLactea Knowledge Base (VLKB) for further studies and analysis.

Data format

The accessed data are available in the following formats:

- Flexible Image Transport System (FITS) cubes : Radio cubes surveys and pointed archives.

for the following surveys: CHIMP, CHaMP, HOPS, ThrUMMS, JCMT-HARPS, MALT90, VGPS, CGPS, SPGS

- FITS images : Continuum surveys.

for the following surveys: CORNISH, MAGPIS, MIPS GAL, WISE

- Catalogues Single band catalogues used in band-merging (in CSV).

for the following surveys: WISE, ATLASGAL, BGPS, MIPS GAL, MSX

Access to data, and data sharing practices and policies

The data will be updated following survey updates and analysis results (e.g. for band-merging processing or filamentary structure detections) due to updates to the pipelines used to generate them.

Versions of the data product that have been revised due to errors / updates (other than new data) will be retained in an archive system. A revision history document will describe the revisions made.

Backups of the data files will be retained at the INAF IA2 data center.

Policies and provisions for re-use, re-distribution and production of derivatives

The final data product will be released to the public as soon as the star formation studies have been completed and the data have been prepared. There is no period of exclusive use by the data collectors. Users can access the data files via the VLVA and the VLKB interfaces. Raw data will be maintained on internally accessible servers and made available on request at no charge to the user.

Archiving of data

Our intent is that the long-term high quality final data product generated by this project will be available for use by the research and

policy communities in perpetuity. The raw supporting data will be available in perpetuity as well, for use by researchers to confirm the quality of the ViaLactea data.

The standardized metadata record relies on the Virtual Observatory standards to be easily discoverable at large by the astronomical community.