

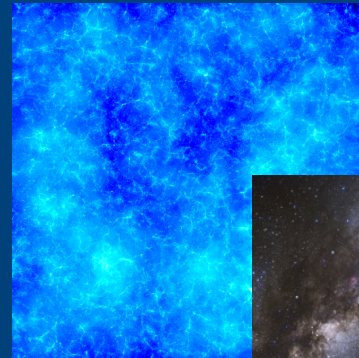


Leibniz-Institut für
Astrophysik Potsdam

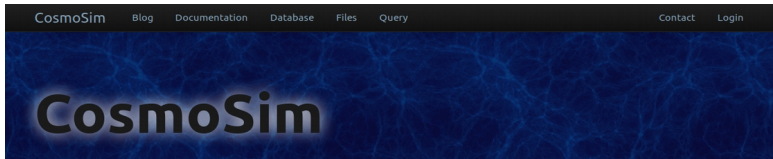
DOI handling at AIP

Anastasia Galkin
Ole Streicher
Harry Enke

IVOA Oct 2019, Groningen



Scientific Databases hosted @AIP



RAVE Survey

The Radial Velocity Experiment

RAVE is to date one of the largest spectroscopic observing programs and therefore, to fully define the stellar population of the Galaxy, to fully define the stellar atmospheric parameters, and therefore, to fully define the stellar population of the Galaxy, to fully define the stellar atmospheric parameters, and therefore, to fully define the stellar population of the Galaxy...

- 2003-2013: 574,630 stars
- accuracy of velocity of 100 m/s
- derived stellar parameters: metallicity (M/H),
- accuracy of distance of 100 pc
- accuracy of elemental abundances
- Number of data releases

RAVE DR6

Lorem ipsum dolor sit amet tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.



Welcome to the r

In preparation for the upcoming data release, we have migrated your personal system to our new infrastructure. We are sorry for any inconvenience caused and thank you for your patience.

Gaia second data

The second data release is now available. It contains the first data release plus the new data from the second data release.

Gaia first data rel

The first release catalog is now available. It contains the first data release plus the new data from the first data release.

Getting started

Getting started with the database. This page provides information on how to use the database and how to access the data.

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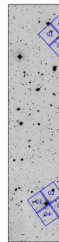
Gaia@AIP Services

hosted by the Leibniz-Institute for Astrophysics Potsdam (AIP)

MUSE-Wide News Fields Catalogs+ Cut-Out Query Database+ Contact Login



Welcome to the MUSE-Wide survey p



This page describes the MUSE-Wide project - a "shallow" MUSE survey covering the CANDELS-COSMOS areas.

It also serves as a data release page. The current data release includes:

1. links to reduced cubes and a cutout service to download them
2. an emission line catalog (with spectra and redshift identification)
3. optimally extracted spectra for all photometrically selected galaxies

Please check out the news pages for science coming out of MUSE-Wide of these data.

Recent News

November 19th, 2018
The MUSE-Wide Survey: Survey Description
New paper by T. Urrutia et al. This

APPLAUSE

Archives of Photographic PLates for Astronomical USE

Home Project+ Documentation+ Database tables+ Query Viewer Contact Wiki Login

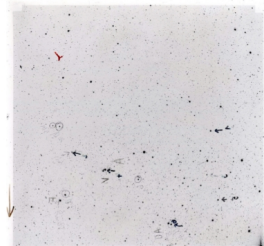
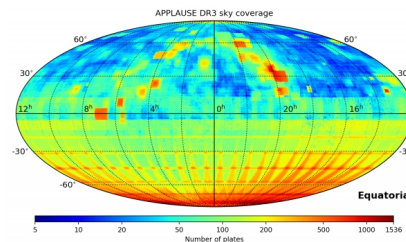
Welcome to the APPLAUSE archives

German astronomical observatories own considerable collection of photographic plates. While these observations lead to significant discoveries in the past, they are also of interest for scientists today and in the future. In particular, for the study of long-term variability of many types of stars, these measurements are of immense scientific value.

There are about 85000 plates in the archives of Hamburger Sternwarte, Dr. Karl Remis-Sternwarte Bamberg, and Leibniz-Institut für Astrophysik Potsdam (AIP). The plates are digitized with high-resolution flatbed scanners. In addition, the corresponding plate envelopes and observation logbooks are digitized, and further metadata are entered into the database. The work is carried out within the project 'Digitalisierung astronomischer Fotoplaten und ihre Integration in das Internationale Virtual Observatory', which is funded by the DFG.

On this site, you can get access to the plate data that are processed so far. Please use the registration form to get a user account. Then you can submit SQL queries or fill search forms using the query interface. Without signing in, the query interface can be used as a guest user.

Data Release 3 is available



Example of a photographic plate. More sample images can be found in the image gallery. Access to all image material is also provided by the viewer.

- CosmoSim <https://www.cosmosim.org>
- RAVE <https://www.rave-survey.org>
- Gaia@AIP <https://gaia.aip.de>
- MuseWIDE <https://musewide.aip.de>
- APPLAUSE <https://www.plate-archive.org>

209,414 Works

1m-Spiegelteleskop (Hamburg), Plate 56679

APPLAUSE Collaboration
 Image published 2018 via Leibniz Institut für Astrophysik Potsdam (AIP)
 1m-Spiegelteleskop (Hamburg), Plate : 56679, observed : 1954-11-12

i This data center is not currently reporting usage information.

https://doi.org/10.17876/plate/dr:3/plates/103_56679 **“** Cite

The APPLAUSE Data Release 2

APPLAUSE Collaboration
 Plate published 2016 via Leibniz Institut für Astrophysik Potsdam (AIP)
 Archive: Bamberg Southern Sky Patrol; Preview: 002388_1963_L.png; Scans: 002388_1963_h.fits

i This data center is not currently reporting usage information.

https://doi.org/10.17876/plate/dr:2/plates/201_29977 **“** Cite

Lippert-Astrograph (Hamburg), Envelope 16420

APPLAUSE Collaboration
 Image published 2018 via Leibniz Institut für Astrophysik Potsdam (AIP)
 Lippert-Astrograph (Hamburg), Envelope : 16420

i This data center is not currently reporting usage information.

Registration Year

<input type="checkbox"/> 2013	1
<input type="checkbox"/> 2014	2
<input type="checkbox"/> 2015	23
<input type="checkbox"/> 2016	85,248
<input type="checkbox"/> 2017	12
<input type="checkbox"/> 2018	124,113
<input type="checkbox"/> 2019	15

Resource Types

<input type="checkbox"/> Dataset	124,134
<input type="checkbox"/> Image	85,229
<input type="checkbox"/> Text	34
<input type="checkbox"/> Audiovisual	3
<input type="checkbox"/> Collection	3
<input type="checkbox"/> Other	1
<input type="checkbox"/> Sound	1

Data Centers

<input type="checkbox"/> Leibniz-Institut für Astrophysik Potsdam (AIP)	209,366
<input type="checkbox"/> Zenodo	10
<input type="checkbox"/> Digital Repository of Ireland	7
<input type="checkbox"/> University of Maryland Libraries Repositories	4
<input type="checkbox"/> Columbia University Libraries	3
<input type="checkbox"/> Classiques	3

MDPL2 – Galacticus

Description

Galacticus catalog of semi-analytical galaxies

General information on Galacticus tables is also available at [Tables – Galacticus](#).

Please cite this data set using the unique digital object Identifier [doi:10.17876/cosmosim/mdpl2/009](https://doi.org/10.17876/cosmosim/mdpl2/009).

Columns

Column	Type	UCD	Unit	Description
dbId	bigint	meta.id meta.main		unique database ID for this table, constructed from file number, snapnum and row in file
snapnum	smallint	time.epoch		snapshot number (same as in Rockstar-catalogues)
redshift	double	time.epoch		redshift of the universe for this timestep
rockstarId	bigint	meta.id meta.main		ID in corresponding dark matter halo in Rockstar catalogue
depthFirstId	bigint	meta.id meta.main		depthFirstId of dark matter halo in corresponding Rockstar catalogue
forestId	bigint	meta.id		ID of the merger forest in corresponding Rockstar

Search

Database

Simulations

VSMPL
SMDPL
MDR1
MDPL
MDPL2
SMDPL
BigMDPL
HugeMDPL
Bolshoi
BolshoiP
Clues3_LGDM
Clues3_LGGas

Galaxies

MDPL2 – Galacticus
MDPL2 – SAG
MDPL2 – SAGE

Halo Finders

Galaxy Clusters

Files

Disclaimer

Rockstar data

Galaxies data

Simulation data

Table data, with numbered data releases

RAVE survey, DR5, 20 tables

landing page 0: Data release paper reference, metadata explanations

URL: <https://www.rave-survey.org/project/documentation/dr5/>

DOI: doi:10.17876/rave/dr5/

landing page 1: Description of Rockstar Halo Catalog Table

URL https://www.rave-survey.org/project/documentation/dr5/rave_dr5/

DOI: doi:10.17876/rave/dr5/001

+ 19 other similar landing pages for other tables

Please note the “Changes” link, at the bottom of the landing page a list of changes to the table after the DR5. Additionally the DOI Version has been increased for each of the changes, documenting erroneous table entries etc. => good scientific practice!

RAVEPUB_DR5.RAVE_DR5

Description

DR5 data: HRV, Stellar Parameters, Infrared calibrated temperatures, crossmatch with TAGS and other catalogs

The data can be accessed using the [query interface](#) or downloaded at [Downloads](#). Please cite this data set using the unique digital object identifier [doi:10.17876/rave/dr.5/001](https://doi.org/10.17876/rave/dr.5/001).

Changes

Columns

Column	Type	UCD	Unit	Description
RAVE_OBS_ID	varchar	meta.id		Unique Identifier for RAVE objects, Observation Date, Fieldname, Fibernumber
HEALPix	bigint	meta.code		Hierarchical Equal-Area Iso-Latitude Pixelisation value (N_side = 4096)
RAVEID	varchar	meta.id		(J2000 GCS), see Note in DR4
RAdeg	double	pos.eq.ra	deg	Right Ascension (J2000)
DEdeg	double	pos.eq.dec	deg	Declination (J2000)
Glon	double	pos.galactic.lon	deg	Longitude (J2000 GCS)
Glat	double	pos.galactic.lat	deg	Latitude (J2000 GCS)
HRV	float	spect.dopplerVeloc pos.heliocentric	km/s	Heliocentric radial velocity
eHRV	float	stat.error spect.dopplerVeloc pos.heliocentric	km/s	Error of Heliocentric radial velocity stat.error
StdDev_HRV	double	stat.stddev spect.dopplerVeloc pos.heliocentric	km/s	Standard deviation in HRV from 10 resampled spectra

Search

RAVE on facebook

About Rave

- [Introduction to RAVE](#)
- [Project description](#)
- [RAVE Publications](#)
- [Standard Acknowledgment](#)
- [Further Publications using RAVE data](#)
- [RAVE Meetings](#)
- [RAVE Gallery](#)
- [General Images](#)
- [Scientific Images](#)
- [Telescope & instrument pictures](#)
- [Movies](#)

Mailing lists

- [RAVE general mailing list](#)

UTC_start	time	time.start	timestamp	Coordinated Universal Time at start of exposure (insecure)
UTC_end	time	time.end	timestamp	Coordinated Universal Time at end of exposure (insecure)

Changes:

13.07.2018: [Constant_High_HRV_offset-DR5-RAVE_OBS_ID](#)

- Added list of RAVE_OBS_ID for stars with high velocities errors as correction for RAVDEDR5 table. These stars have a constant velocity offset of ~100km/s compared to GaiaDR2 owing to sky subtraction issues

22.08.2017: (V6.0)

- updated wrong MJD_OBS for fields
- 20040110_0336m1, 20040110_0535m29, 20040110_0953m16, 20040111_0943m05

02.03.2017: (V5.0)

- updated empty ID_HIPPARCOS column

07.02.2017: (V4.0)

- removed erroneous entries for Mg_N/Mg (Mg_N <0)
- corrected unit from kpc to pc for distances/error in distances
- corrected erroneous negative errors for USNOB1 proper mountions (epm_RA,epm_DE)_USNOB1 generated by type error on crossmatching

25.11.2016: (V3.0)

- removed data on spectral parameters for observations until 20040403. These were from a test run and remained erroneously in the file.

08.11.2016: (V2.0)

- updated row numbers in RAVE_DR5
- removed inconsistencies in cuts
- renamed cols for final version for DR5 paper

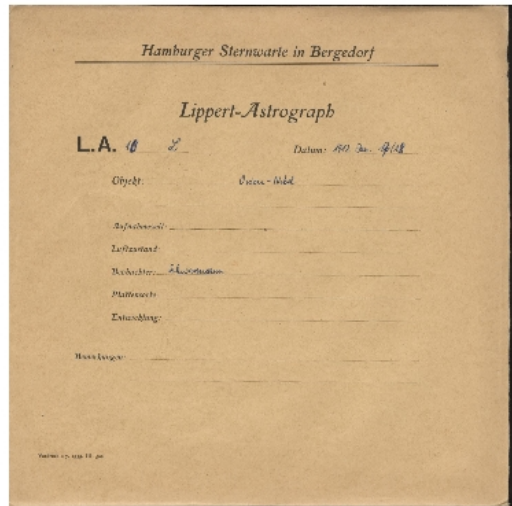
31.10.2016: (V1.0)

- corrected columns Bmag_APASSDR9 and MatchFlag_APASSDR9
- corrected column FitQuality_Binney: data type is float
- Inserted values for CluStar_Flag and FootPrint_Flag



Envelope from Lippert-Astrograph (Hamburg)

Envelope



[Download logpage](#)

Applause ID:	dr.3/envelopes/101_8092
Archive:	Lippert-Astrograph (Hamburg)
Page number:	
Page order:	
Image size:	1496 × 1476 px
Image created:	April 21, 2010, 9:13 a.m.
File format:	JPEG
File:	DR3/covers/HAM-LA/LA00010_cover.jpg

Digital object identifier

You can use the following DOI to cite this envelope in a publication:

https://doi.org/10.17876/plate/dr.3/envelopes/101_8092

License

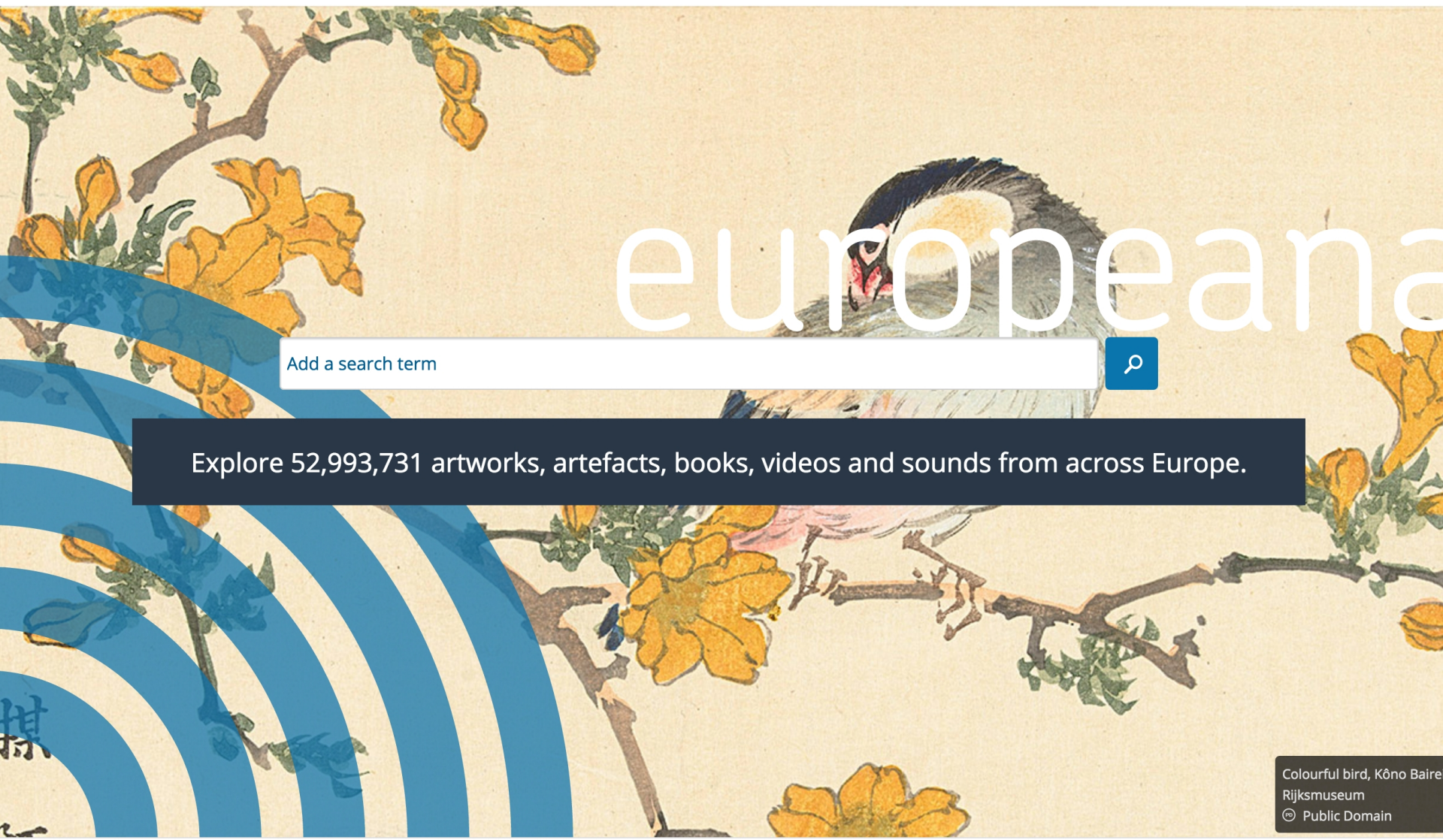


This envelope is published under the [Attribution 4.0 International \(CC BY 4.0\)](#).

Navigation

[Next envelope in this archive →](#)

[Back to overview](#)



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Colourful bird, Kōno Bairō
Rijksmuseum
© Public Domain

THEMATIC COLLECTIONS

MUSIC COLLECTIONS

THEMATIC COLLECTIONS

ART HISTORY COLLECTIONS

EXHIBITION

FACES OF EUROPE

WHAT'S NEW **START**

#BIGARRIDE

Europeana and OAI-PMH

DOI are also applicable identifiers for **cultural heritage objects (CHO)**.

Europeana is a European initiative for publishing CHO

- needs metadata in EDM format
- offers **OAI-PMH (Open Archive Initiative Protocol for Metadata Harvesting)** api for uploads
- has member organisations in many European countries (in Germany: collaboration of major libraries - Deutsche Digitale Bibliothek)
- requires contract with organisation
- requires CC0 licensed CHO

Example:

- APPLAUSE plate database: ~55000 CHO entries (DR2, 02/2016)
- to manage, we use table with metadata and our archive id to cope with complex relations between CHO

DOI – cooking receipt

- Ingredients
 - Data
 - Metadata
 - DOI templates for the datasets
 - Landing pages

Where to get?

 - ask the scientist
 - data curator
 - data curator
 - web developer
- Method
 - Quality check your data and the metadata
 - Make a license decision (CC0 is our favorite)
 - Mix and match the metadata into the DOI metadata
 - Stir the metadata into the landing pages for each set
- Call your scientific community to enjoy the fruits of labor. Repeatedly.

We have it with a Daiquiri - a python-based research data publishing framework developed at AIP <https://github.com/django-daiquiri>

StarHorse 2019

Photo-astrometric distances, extinctions, and astrophysical parameters for *Gaia* DR2 stars brighter than $G = 18$ by F.Anders et al. (2019)

The data formats

The SH data is available in three formats: **hdf5**, **fits** and **csv**. We have split the data into 16 chunks for each format. Each file format has its own file list in order to simplify the downloads with `wget` command.

- **HDF5(41GB)**: [List of hdf5 files](#)
- **FITS(41GB)**: [List of fits files](#)
- **CSV (46GB)**: [List of CSV gzipped files](#)

Getting the data

Get the list of the files: `wget --no-check-certificate http://data.aip.de/data/starhorse/fits/list-fits.txt`

Download the data: `wget --no-check-certificate -I list-fits.txt`

- Access examples: https://github.com/arm2arm/starhorse_db
- `cmd_from_db`: [launch binder](#) [Launch on Google Colab](#)
- `cmd_from_db_chunking`: [launch binder](#) [Launch on Google Colab](#)

Citations

- Article: <https://doi.org/10.1051/0004-6361/201935765>
- Data: [doi:10.17876/data/2019_1](https://doi.org/10.17876/data/2019_1)
- BibTex:

```
@article{ refId0,  
  author = {{Anders, F.} and {Khalatyan, A.} and {Chiappini, C.} and {Queiroz, A. B.} and {Santiago, B.},  
  title = {Photo-astrometric distances, extinctions, and astrophysical parameters for Gaia DR2 stars brighter than G = 18},  
  DOI= "10.1051/0004-6361/201935765",  
  url= "https://doi.org/10.1051/0004-6361/201935765",  
  journal = {A&A},  
  year = 2019,  
}
```

Please use this DOI to cite the data:

[doi:10.17876/data/2019_1](https://doi.org/10.17876/data/2019_1)

The data were published with this article:

[F. Anders, et al. \(2019\)](#)

[Download](#)

For questions please contact:

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cristina.chiappini AT [aip.de](#)

data.aip.de

IVOA and DOI

Persistent identifier tag

- We need a way to have DOI clearly and intuitively tagged inside a VOTable. It should be not pointing to the service, but each dataset or table should have a persistent identifier tag.

What about DOI's in FITS files and a VOTables?

- How to record provenance information in a file? - For downloaded VOTables - tag for DOI(s) of the queried tables and the SQL query.



Leibniz-Institut für
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Questions?

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