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WP4 DMs, Ingestion and Services Updates Giacomo Coran

Spoke 3 II Technical Workshop, Bologna Dec 17 - 19, 2024

ICSC Italian Research Center on High-Performance Computing, Big Data and Quantum Computing

Missione 4 • Istruzione e Ricerca









Fermi Use Case

- -Logical Data Model based on ObsCoreDM
- Physical Data Model as rappresentation of the archiving tabular structure described in two tables
- -One table for the scientific data products
- -One table for the instrumental data

		photon
id	mediumint(9)	NOT NULL AUTO INCREMENT PK
did_rse	varchar(255)	DEFAULT NULL
did_scope	varchar(255)	DEFAULT NULL
did_name	varchar(255)	DEFAULT NULL
checksum	varchar(32)	DEFAULT NULL
file_version	smallint(5)	NOT NULL
file_name	varchar(255)	NOT NULL
file_extension	varchar(255)	NOT NULL
NAXIS_HDU0	smallint(6)	DEFAULT NULL
EXTEND	tinyint(1)	DEFAULT NULL
CHECKSUM_HDU0	varchar(32)	DEFAULT NULL
TELESCOP	varchar(8)	DEFAULT NULL
INSTRUME	varchar(8)	DEFAULT NULL
EQUINOX	float	DEFAULT NULL
RADECSYS	varchar(8)	DEFAULT NULL
DATE	timestamp	DEFAULT NULL DEFAULT NULL
DATE_OBS DATE_END	timestamp	
TSTART	timestamp float	DEFAULT NULL DEFAULT NULL
TSTOP	float	DEFAULT NULL
TIMEUNIT	varchar(8) float	DEFAULT NULL
TIMEZERO		DEFAULT NULL
TIMESTS	varchar(8)	DEFAULT NULL DEFAULT NULL
CLOCKAPP	varchar(8) tinyint(1)	DEFAULT NULL
GPS OUT	tinyint(1)	DEFAULT NULL
MIDREFI	float	DEFAULT NULL
MIDREFF	float	DEFAULT NULL
OBSERVER	varchar(255)	DEFAULT NULL
FILENAME	varchar(255)	DEFAULT NULL
ORIGIN	varchar(32)	DEFAULT NULL
CREATOR	varchar(255)	DEFAULT NULL
VERSION	varchar(8)	DEFAULT NULL
PROC VER	smallint(6)	DEFAULT NULL
DATASUM HDU0	varchar(32)	DEFAULT NULL
NAXIS HDU1	smallint(6)	DEFAULT NULL
NAXISI HDU1	smallint(6)	DEFAULT NULL
NAXIS2 HDU1	smallint(6)	DEFAULT NULL
PCOUNT_HDU1	smallint(6)	DEFAULT NULL
GCOUNT_HDU1	smallint(6)	DEFAULT NULL
CHECKSUM HDU1	varchar(32)	DEFAULT NULL
DATASUM HDU1	varchar(32)	DEFAULT NULL
EXTNAME HDU1	varchar(32)	DEFAULT NULL
HDUCLASS HDU1	varchar(32)	DEFAULT NULL
HDUCLASSI HDU1	varchar(32)	DEFAULT NULL
HDUCLASS2_HDU1	varchar(32)	DEFAULT NULL
PASS VER	varchar(255)	DEFAULT NULL
NDIFRSP	smallint(6)	DEFAULT NULL
DIFRSP0_HDU1	varchar(32)	DEFAULT NULL
DIFRSP1 HDU1	varchar(32)	DEFAULT NULL
DIFRSP2_HDU1	varchar(32)	DEFAULT NULL
DIFRSP3 HDU1	varchar(32)	DEFAULT NULL
DIFRSP4 HDU1	varchar(32)	DEFAULT NULL
DSTYP1_HDU1	varchar(32)	DEFAULT NULL
DSUNI1_HDU1	varchar(16)	DEFAULT NULL
DSVAL1_HDU1		DEFAOLI NOLL
	varchar(32)	DEFAULT NULL
DSREF1_HDU1	varchar(32) varchar(32)	DEFAULT NULL DEFAULT NULL
DSREF1_HDU1 DSTYP2_HDU1	varchar(32) varchar(32) varchar(32)	DEFAULT NULL DEFAULT NULL DEFAULT NULL
DSREF1_HDU1 DSTYP2_HDU1 DSUNI2_HDU1	varchar(32) varchar(32) varchar(32) varchar(16)	DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL
DSREF1_HDU1 DSTYP2_HDU1 DSUNI2_HDU1 DSVAL2_HDU1	varchar(32) varchar(32) varchar(32) varchar(16) varchar(32)	DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL
DSREF1_HDU1 DSTYP2_HDU1 DSUNI2_HDU1 DSVAL2_HDU1 NDSKEYS	varchar(32) varchar(32) varchar(32) varchar(16) varchar(32) smallint(6)	DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL
DSREF1_HDU1 DSTYP2_HDU1 DSUNI2_HDU1 DSVAL2_HDU1 NDSKEYS NAXIS_HDU2	varchar(32) varchar(32) varchar(32) varchar(16) varchar(32) smallint(6) smallint(6)	DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL
DSREF1_HDU1 DSTYP2_HDU1 DSUNI2_HDU1 DSVAL2_HDU1 NDSKEYS NAXIS_HDU2 NAXIS1_HDU2	varchar(32) varchar(32) varchar(32) varchar(16) varchar(32) smallint(6) smallint(6) smallint(6)	DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL DEFAULT NULL
DSREF1_HDU1 DSTYP2_HDU1 DSUNI2_HDU1 DSVAL2_HDU1 NDSKEYS NAXIS_HDU2 NAXIS1_HDU2 NAXIS1_HDU2	varchar(32) varchar(32) varchar(32) varchar(16) varchar(32) smallint(6) smallint(6) smallint(6) smallint(6)	DEFAUT NULL
DSREF1 HDU1 DSTYP2-HDU1 DSUNI2-HDU1 DSVAL2-HDU1 NDSKEYS NAXIS HDU2 NAXIS1-HDU2 NAXIS2-HDU2	varchar(32) varchar(32) varchar(32) varchar(32) smallint(6) smallint(6) smallint(6) smallint(6)	DEFAUT NULL DEFAUT
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DSREF1 HDU1 DSTYP2 HDU1 DSTYP2 HDU1 DSVAL2 HDU1 NDSREY5 NAXIS HDU2 NAXIS1 HDU2 NAXIS1 HDU2 NAXIS2 HDU2 PCOUNT HDU2 GCOUNT HDU2 GCOUNT HDU2	varchar(32) varchar(32) varchar(32) varchar(32) smallint(6) smallint(6) smallint(6) smallint(6) smallint(6) smallint(6) varchar(32)	DEFAUT NULL DEFAUT
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DSREF1 HDU1 DSTYP2 HDU1 DSUN2 HDU1 DSUN2 HDU1 DSVAL2 HDU1 NDSKEYS NAXIS HDU2 NAXIS1 HDU2 PCOUNT HDU2 GCOUNT HDU2 GCOUNT HDU2 DATASUM HDU2 EXTNAME HDU2	varchar(32) varchar(32) varchar(32) varchar(32) smailint(6) smailint(6) smailint(6) smailint(6) smailint(6) varchar(32) varchar(32)	DEFAUT NULL DEFAUT
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DSREF1 HDU1 DSTYP2 HDU1 DSUN2 HDU1 DSUN2 HDU1 DSVAL2 HDU1 NDSKEYS NAXIS HDU2 NAXIS HDU2 NAXIS HDU2 GCOUNT HDU2 GCOUNT HDU2 GCOUNT HDU2 GCOUNT HDU2 DATASUM HDU2 D	varchar(32) varchar(32) varchar(32) varchar(16) varchar(16) smailint(6) smailint(6) smailint(6) smailint(6) smailint(6) smailint(6) varchar(32) varchar(32) varchar(32) varchar(32)	DEFAUT NULL DEFAUT
DSREF1 HDU1 DSTVP2 HDU1 DSUN2 HDU1 DSUN2 HDU1 DSVAL2 HDU1 NDSKEYS NAXIS HDU2 NAXIS HDU2 NAXIS HDU2 RCOURT HDU2 CHECKSUM HDU2 CHECKSUM HDU2 EXTNAME HDU2 EXTNAME HDU2 HDUCLASS HDU2 HDUCLASS HDU2	varchar(32) varchar(32) varchar(32) varchar(16) varchar(16) smailint(6) smailint(6) smailint(6) smailint(6) varchar(32) varchar(32) varchar(32) varchar(32)	DEFAUT NULL DEFAUT
DSREF1 HDU1 DSTYP2 HDU1 DSUN2 HDU1 DSUN2 HDU1 DSVAL2 HDU1 NDSKPS NAXIS HDU2 NAXIS HDU2 RC0URT HDU2 GC0URT HDU2 GC0URT HDU2 GC0URT HDU2 DATASUM HDU3	varchar(32) varchar(32) varchar(32) varchar(16) varchar(16) smailint(6) smailint(6) smailint(6) smailint(6) smailint(6) varchar(32) varchar(32) varchar(32) varchar(32) varchar(32)	DEFAULT NULL
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DSREF1 HDU1 DSTYP2 HDU1 DSUN2 HDU1 DSUN2 HDU1 DSVA2 HDU1 NDSKPS NAXIS HDU2 NAXIS HDU2 NAXIS HDU2 COUNT HDU2 CCOUNT HDU2 CCOUNT HDU2 DATASUM HDU2 DAT	varchar(32) varchar(32) varchar(32) varchar(32) varchar(36) smailint(6) smailint(6) smailint(6) smailint(6) varchar(32) varchar(32) varchar(32) varchar(32) varchar(32) varchar(32) smailint(6)	DEFAUT NULL DEFAUT
DSREF1_HOU1 DSTVP2_HOU1 DSUR2_HOU1 DSVAL2_HOU1 DDSKP5 LAXIS_HOU2 LAXIS_HOU2 LAXIS_HOU2 COUNT_HOU2 COUNT_HOU2 COUNT_HOU2 COUNT_HOU2 COUNT_HOU2 COUNT_HOU2 COUNT_HOU2 DY THOU2 COUNT_HOU2 DI CLASS_HOU2 DI CLASS_HOU2	varchar(32) varchar(32) varchar(32) varchar(16) varchar(16) smailint(6) smailint(6) smailint(6) smailint(6) varchar(32) varchar(32) varchar(32) varchar(32) varchar(32) varchar(32) fioat	DEFAULT NULL

spacecraft						
id	mediumint(9)	NOT NULL AUTO INCREMENT	PK			
did rse	varchar(255)	DEFAULT NULL				
did scope	varchar(255)	DEFAULT NULL				
did name	varchar(255)	DEFAULT NULL				
checksum	varchar(32)	DEFAULT NULL				
file version	smallint(5)	NOT NULL				
file name	varchar(255)	NOT NULL				
file extension	varchar(255)	NOT NULL				
NAXIS HDU0	smallint(6)	DEFAULT NULL				
EXTEND	tinyint(1)	DEFAULT NULL				
CHECKSUM HDU0	varchar(32)	DEFAULT NULL				
DATASUM HDUO	varchar(32)	DEFAULT NULL				
TELESCOP	varchar(8)	DEFAULT NULL				
INSTRUME	varchar(8)	DEFAULT NULL				
EQUINOX	float	DEFAULT NULL				
RADECSYS	varchar(8)	DEFAULT NULL				
DATE	timestamp	DEFAULT NULL				
DATE OBS	timestamp	DEFAULT NULL				
DATE END	timestamp	DEFAULT NULL				
TSTART	float	DEFAULT NULL				
TSTOP	float	DEFAULT NULL				
TIMESYS	varchar(8)	DEFAULT NULL				
TIMEUNIT	varchar(8)	DEFAULT NULL				
GPS OUT	tinvint(1)	DEFAULT NULL				
MIDREFI	float	DEFAULT NULL				
MIDREFF	float	DEFAULT NULL				
OBSERVER	varchar(255)	DEFAULT NULL				
FILENAME	varchar(255)	DEFAULT NULL				
ORIGIN	varchar(32)	DEFAULT NULL				
CREATOR	varchar(255)	DEFAULT NULL				
VERSION	varchar(8)	DEFAULT NULL				
PROC VER	smallint(6)	DEFAULT NULL				
NAXIS HDU1	smallint(6)	DEFAULT NULL				
NAXISI HDU1	smallint(6)	DEFAULT NULL				
NAXIS2 HDU1	smallint(6)	DEFAULT NULL				
PCOUNT HDU1	smallint(6)	DEFAULT NULL				
GCOUNT HDU1	smallint(6)	DEFAULT NULL				
CHECKSUM HDU1	varchar(32)	DEFAULT NULL				
DATASUM HDU1	varchar(32)	DEFAULT NULL				
EXTNAME HDU1	varchar(32)	DEFAULT NULL				
TIMEZERO	float	DEFAULT NULL				
TIMEREF	varchar(8)	DEFAULT NULL				
TASSIGN	varchar(16)	DEFAULT NULL				
CLOCKAPP	tinyint(1)	DEFAULT NULL				
EXTVER	smallint(6)	DEFAULT NULL				
WEEK	smallint(3)	NOT NULL				
update time	timestamp	NOT NULL DEFAULT CURRENT TIMESTA	MD			
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Gaia Use Case

- Physical archive structure divided into three tables
- -One table for the observed sources
- -One table for the observed transits
- -One table to link them all
- -Minor adjustments on the transits table to provide better search capabilities

CompleteSource					
id	bigint(9)	NOT NULL AUTO INCREMENT	PK		
did rse	varchar(255)	DEFAULT NULL			
did scope	varchar(255)	DEFAULT NULL			
did name	varchar(255)	DEFAULT NULL			
checksum	varchar(32)	DEFAULT NULL			
file version	smallint(5)	NOT NULL			
file name	varchar(255)	NOT NULL			
file extension	varchar(255)	NOT NULL			
SOURCE ID	bigint(19)	NOT NULL			
ALPHA	float	DEFAULT NULL			
ALPHA_STAR_ERROR	float	DEFAULT NULL			
DELTA	float	DEFAULT NULL			
DELTA_STAR_ERROR	float	DEFAULT NULL			
MU ALPHA STAR	float	DEFAULT NULL			
MU_ALPHA_STAR_ERROR	float	DEFAULT NULL			
MU DELTA	float	DEFAULT NULL			
MU_DELTA_ERROR	float	DEFAULT NULL			
NU EFF USED IN ASTROMETRY	float	DEFAULT NULL			
RADIAL VELOCITY	float	DEFAULT NULL			
RADIAL VELOCITY ERROR	float	DEFAULT NULL			
VARPI	float	DEFAULT NULL			
VARPI_ERROR	float	DEFAULT NULL			
update_time	timestamp	NOT NULL DEFAULT CURRENT_TIMESTAMP			
key_name	varchar(255)	DEFAULT NULL			
GMEAN_FLUX_MEAN	float	DEFAULT NULL			
GMEAN_FLUX_ERROR	float	DEFAULT NULL			

AstroElementary NOT NULL AUTO INCREMENT

DEFAULT NULL

DEFAULT NULI

DEEAULT NULL

DEFAULT NUL

DEFAILT NULL

DEFAULT NULL

DEFAULT NULL

DEFAILT NULL

DEFAULT NULL

DEFAULT NUL

NOT NULL DEFAULT CURRENT TIMESTAME

NOT NUL

NOT NUL

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PK

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varchar(25

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did rse

id scope

hecksum

file version

file name

file extensio

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TRANSIT_ID

		CrossMatch	
id	bigint(9)	NOT NULL AUTO INCREMENT	Р
did rse	varchar(255)	DEFAULT NULL	
did scope	varchar(255)	DEFAULT NULL	
did name	varchar(255)	DEFAULT NULL	
checksum	varchar(32)	DEFAULT NULL	
file version	smallint(5)	NOT NULL	
file name	varchar(255)	NOT NULL	
file extension	varchar(255)	NOT NULL	
SOURCE ID	bigint(19)	NOT NULL	
TRANSIT ID	bigint(19)	NOT NULL	
SOLUTION ID	bigint(19)	NOT NULL	
DISTANCE	smallint(5)	DEFAULT NULL	
FLAGS	smallint(4)	DEFAULT NULL	
HEAL PIX FOV	bigint(9)	DEFAULT NULL	
update time	timestamp	NOT NULL DEFAULT CURRENT TIMESTAMP	
key name	varchar(255)	DEFAULT NULL	









Data Ingestion

- Minor adjustment to the extracting method to mirror the changes on the file structure and the consequent changes on the archiving structure
- Data ingestion completed for the provided Gaia datasets
- -More than 800k entries in the Gaia Database
- -Data ingestion mostly completed also for Fermi

id did_rse alpha dial_velocity radial	did_scope alpha_star_error l_velocity_error va	did_name delta delta_error arpi varpi_error		hecksum file_v mu_alpha_star_error key_name		file_extension ta_error nu_eff_used_i _flux_error	source_id n_astrometry
811486436281131 0.5 164836 TEST_USERDISK 1.6262927234476942 673666617906817 0.13 164837 TEST_USERDISK 1.6261458275575598	0.344148387062902 0.3 9536560136485103 0.622366 test completeSour 415.9469111340154 0.3 30642358925354847 0.73361 test completeSour 0.168490806251154 0.3	ce_test_830_CompleteSource_13800 380739720455390 0.7793564854712 0806938371 0.68154046001351 0.8071214245081225 306 801354050 97727528140 0.7203772478028843 (c.test_030_CompleteSource_13800 08088213497359227 0.815495164555 097925223107 0.22165473155780	556 0.8539829078310515 2024-11-19 12:25:06.9673 7.0000.h5 bade2aadd703 9883 0.8425218160216086 2024-11-19 12:25:06.9673 7.0000.h5 bade2aadd703 9248 0.3517431273119491	0.41940808054244764 1. 75 CompleteSourceImpl_@ 157c33998b7a593ba62 157c33998b7a593ba62 157c33998b7a593ba62 0.0224773253039997987 -4	0.8112446969615548 0.558 0 CompleteSource_1300 0.3053569992589864 0.7548 0 CompleteSource_1300 .032774160830083 0.0164442	18.199965053 0.7640 264022968026 97_0000 .h5 906649172167 97_0000 .h5 91840813438 0.9085	3376960745635102 258437240164 3376960749930167 395901754755 0 33376960814354268 885216563555
id did_rse 	did_scope ac_win_coord	did_name u observing_time	pdate_time		e_version file_na s gmag object_type hea		n transit_i transit_time
	, 4403, 7080, 21872, 6479, 3	tary_test_030_AstroElementary_13 2899, 31460, 25763] 2024-11- 6, 7830575635916762565, -68566103	20 15:53:52.552184 Astr	oElementaryImpl_6696		327212741 [-1451003674715	710443468779 470010, 31698135 85-05 15:26:31.6

id did_tse did_scope d checksum_hdu@ telescop (kapp gsc.ut mjdrefi pcount_hdul gcount_hdul d fragh_hdul dstypl_hdul dsun checksum_hdu2 datasum_hdu2	instrume equinox radecs; mjdreff observer hecksum_hdu1 datasum_hdu1 i1_hdu1 dsval1_hdu1 dsref1	/s date ' filename extname_hdu1 hduclass_hdu1 hdu1 dstyp2_hdu1 2 hduclass1_hdu2 hduclass3	1 hduclass1_hdu1 hducla dsun12_hdu1 2_hdu2 ontime	creator version ss2_hdu1 pass_ver nd: dsval2_hdu1 ndskeys telapse extver_hdu2	ifrsp difrsp@_hdu1 naxis_hdu2 naxis1_ week update	timeunit tim m_hdu@ naxis_hdu difrsp1_hdu1 c hdu2 naxis2_hdu2 _time	1 naxis1_hdu1 lifrsp2_hdu1 d 2 pcount_hdu2	timeref c naxis2_hdu1 ifrsp3_hdu1 gcount_hdu2
0 1 1 NE 1 7 15 5 MGDT19MTMGTHPMT 13756833768 16 1 1 7 TEST_USEDISK 16 exit 1<	BP7423783783783787 Peter Miche Auklassiukuizu, joszyssikka v. Auklassiukuizu, joszyssikka v. Joszysika v. Joszysikka	2022-01-19 12:07:48 200 [2015 21-07:48 200 [2015 21-07:48 200 [2015 21-07:48 200 [2015 2	Be-08-04 15:43:36 22 2985_940.1151 FSSC 1 EVENTS ALL 1 1208_940.1151 FSSC 1 148971_26519963 35143349750041551 4555 2614334057500474eb298/c6146 58 9899 23 28.08-07 03:33:43.9999 12 24 24 28.08-07 3:33:43.9999 12 24 24 24 29.08-001.11t5 FSSC EVENTS 24 <td>00.06.07 00.01 00.01 11 2 1 12 202352 1 100660 0 1 000601 0 1 000605 0 1 </td> <td> 395 5 NONE 9 2024-12-15 20 142_photon_weekly_w01 239772945 2463685 5 NONE 2 18 2624-12-15 20 18 2624-12-15 20 18 2624-12-15 20 18 t_photon_weekly_w01 240366861 24997042 365 NONE</td> <td>9 s NONE N N NONE N N N N N N N N N </td> <td>0 TT 2 98 0NME N 0 TT 2 98 0 TT 2 98 0 TT 2 98 0 TT 2 98 0 TT 0 TT</td> <td>NNE 0 1 1 0 1 587025 DNE 1 1 0 1 1 0 1 1 0 1 10CAL 1 1071 0 1 572718 DNE </td>	00.06.07 00.01 00.01 11 2 1 12 202352 1 100660 0 1 000601 0 1 000605 0 1	395 5 NONE 9 2024-12-15 20 142_photon_weekly_w01 239772945 2463685 5 NONE 2 18 2624-12-15 20 18 2624-12-15 20 18 2624-12-15 20 18 t_photon_weekly_w01 240366861 24997042 365 NONE	9 s NONE N N NONE N N N N N N N N N	0 TT 2 98 0NME N 0 TT 2 98 0 TT 2 98 0 TT 2 98 0 TT 2 98 0 TT 0 TT	NNE 0 1 1 0 1 587025 DNE 1 1 0 1 1 0 1 1 0 1 10CAL 1 1071 0 1 572718 DNE
id did_tse did_scope hdu@ extend checksum_hdu@ sys timeunit gps_out ejd ul pcount_hdul 	datasum_hdu0 telescop efi mjdreff	observer	filename	date_obs origin crea	date_end tor version	file_name tstar proc_ver naxi		tension nax top t hdul naxis2
26 0 1 4 TEST_USERDISK test 0 t LCALNAAKLAAKLAA 5 f 5] 5 TEST_USERDISK test 0 t NEAJ0930HEAG993 5 f 5]	910 0.00074287037037037037 Pc 7MacAlac9JacAJac 241209705 Spacecraft_test_02_0_alacsp K 0 GLAST 910 0.00074287037037037 Pc jcabl2T2ja2bjY2Z 127373883 Spacecraft_test_02_0_lat_sp	LAT 2000 FK5 ter Michelson lat_spacecraft) Sc_DATA 0 acecraft_weekly_w011_p310_00 LAT 2000 FK5 ter Michelson lat_spacecraft 6 SC_DATA 0 acecraft_weekly_w013_p310_v00: LAT 2000 FK5 ter Michelson lat_spacecraft	2022-02-28 17:19:41 21 t_meekly_m012_p310_v001.fi LOCAL SATELLITE f f1ts 8bb2446ce523e3264 2022-02-28 17:19:41 22 t_meekly_m01_p310_v001.fi LOCAL SATELLITE f 1.fits 805cace8d7bbb04e94 2022-02-28 17:19:41 21	N08-08-21 00:13:52.9922 ts FSTC FermiDatase 1 12 12 362079fc2be87ee 908-08-14 01:07:40.9819 ts FSSC FermiDatase 1 1 1 11 988-08-14 01:07:40.9819 1 11 1 1 1 11 1 988-08-28 00:55:38.9926 538.9926 926 1 155 FermiDatase 15 1 11 11 11 11 11 908-08-28 00:55:38.9926 S58.9926 S8.9926 1 15 FSC FermiDatase	rver-7.0.0 0 2024-12-15 20:33:40 0 lat_spacecra: 2008-08-21 00:13:40 rver-7.0.0 0 2024-12-15 20:33:40 0 lat_spacecra: 2008-09-04 00:48:44 rver-7.0.0 0	0843 240970433. 310 066857 't_weekly_w011_p31: 0847 240368861.' 310 065413 't_weekly_w013_p31: 0864 241577739.' 310	992206 2415777 2 8_v001 .fits.c 981915 2409704 2 8_v001 .fits.c	27.084335 T 164 22 21.084781 T 164 12









GaiaMerger

- -«Cut & Merge» Service
- -Generates new temporary files
- For only sources or transit direct copy of the single groupes inside the newly generated file
- -For combination of sources and transits implemented file structure so that each transit resides with its related source within one single HDF5 group
- Provides smaller data files to the users with only their selected sources and/or transits
- Provides easy access to each single source to be studied



```
\equiv jPortal
```

? Help	Search	ADQL	Results	Cut & Merge	Transits			
N Settings	file_name							
Observation	gaia_merg	er_1b661fb	o8bb6c48e9	0e435aaa8c070	6b6_1728638200			
🗅 Fermi								
🔁 Gaia								
Simulation								
D Pluto								
C Ramses								

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Conclusions

- -Observative data are easily stored in the constructed archiving system
- -Good communication with data providers easily solves fine tuning problems
- -Data ingestion is fairly achievable even with few resources
- -The observative archive is «search-ready» for the developed portal









Next Steps

- -Simulative Logical Data Models are next in line to be prepared
- -Simulative Physical DMs still requires the knowledge on the searchable metadata to be stored
- -TAP and Datalink implementation to provide access even to standardized clients
- -Ingestion of a larger second set of Gaia data
- -Implementation of other analysis services, as the connection to the Fermitools



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Thank you!

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