VLTI Expertise Centres

ESO coordination meeting:
Jan 19-20 2021

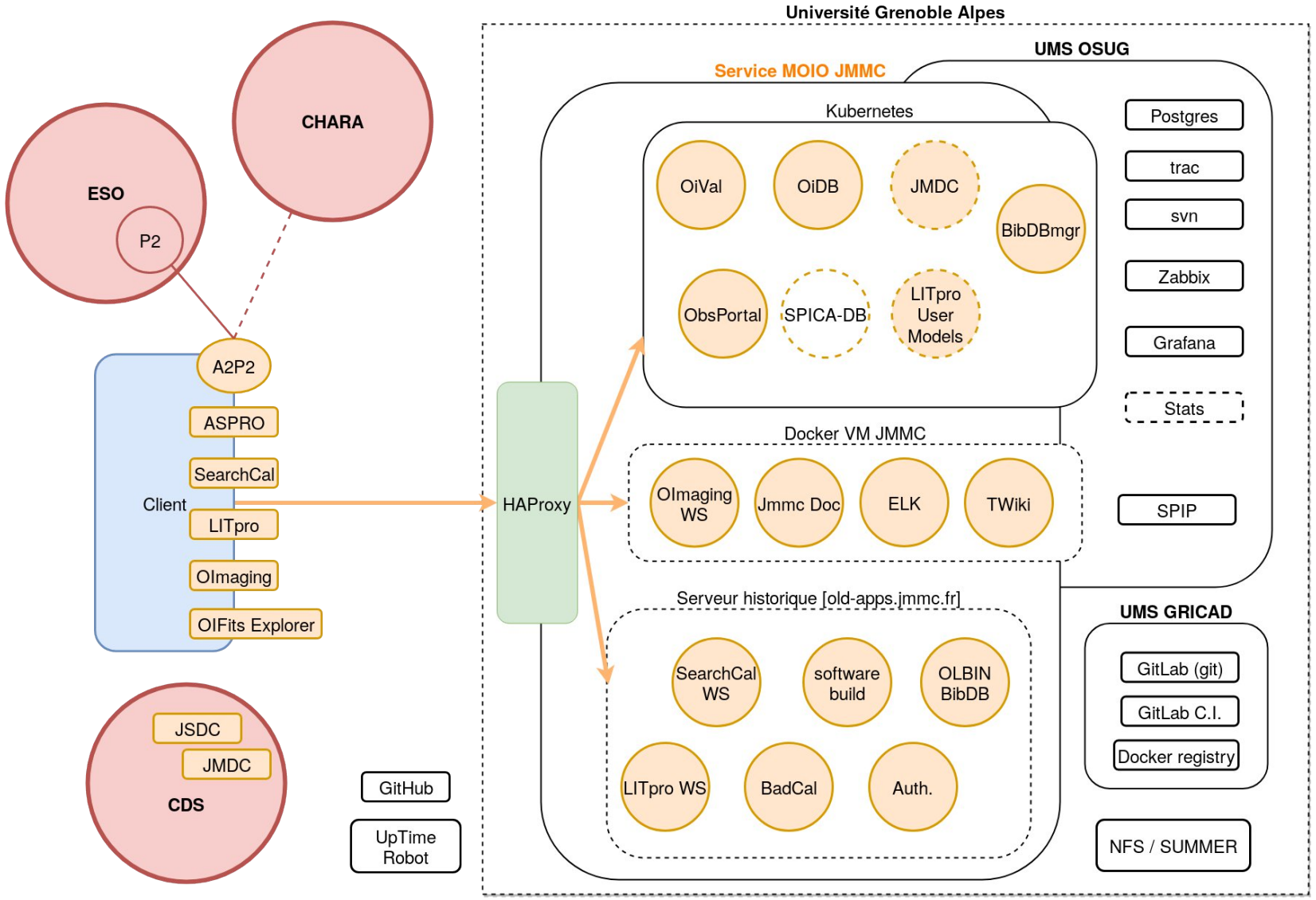
JMMC **Updates**

Platform update

Software developments involves service deployments and both software / resources maintenance

JMMC servers for multiples services

Optimize resource management:
- build a modular architecture
- update services as often as possible
- group and refactor services
- enhance reliability



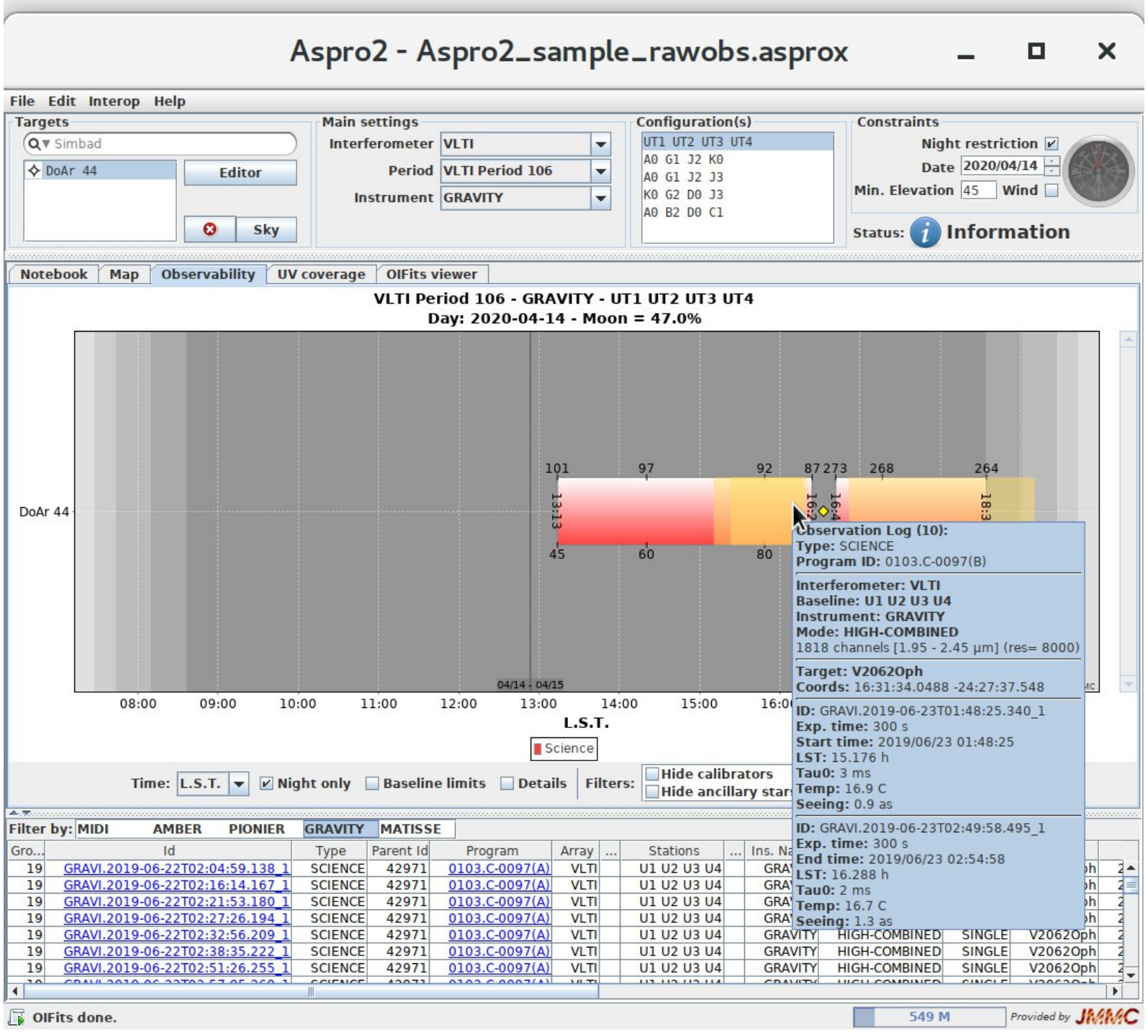
ASPRO 2 + Obs Portal

Integrate VLTI observation logs (tracking) in ASPRO2

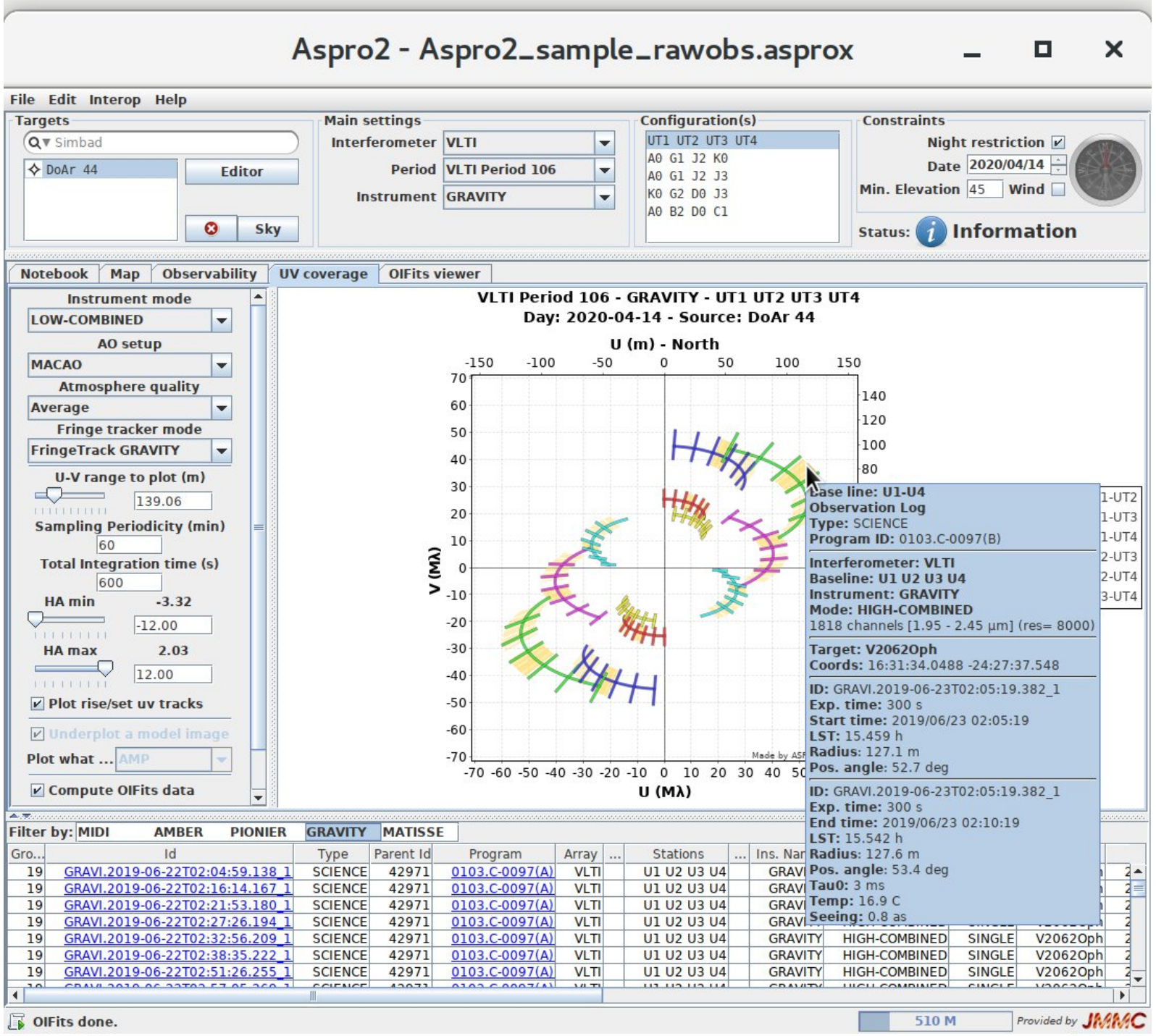
http://www.jmmc.fr/twiki/bin/view/Jmmc/Software/JmmcAspro2#Get_Information_about_past_obser

Since Aspro2 20.05 public release

- get latest obs logs from obs portal
- show table + details in tooltips
- Filter logs (instrument, more filters to come)
- *Problem: cross identification of targets (ra, dec)*



- Show UV points already done of filtered obs logs



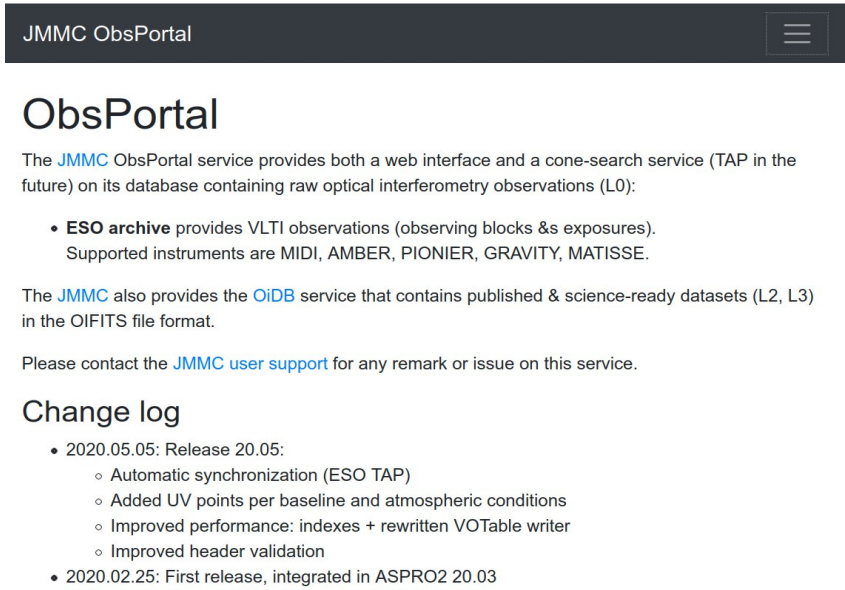
JMMC Obs Portal

http://obs.jmmc.fr/

(Python/Postgres web app)

- Observation Logs VLTI
  - all instruments
  - ESO sync twice a day (TAP)
- OiDB sync => L0 ESO

- *Future:*
  - *Better Log filtering in ASPRO2*
  - *VO TAP interface*
  - *Improved cross identification*
  - *Ingest SPICA / CHARA logs*



Database statistics

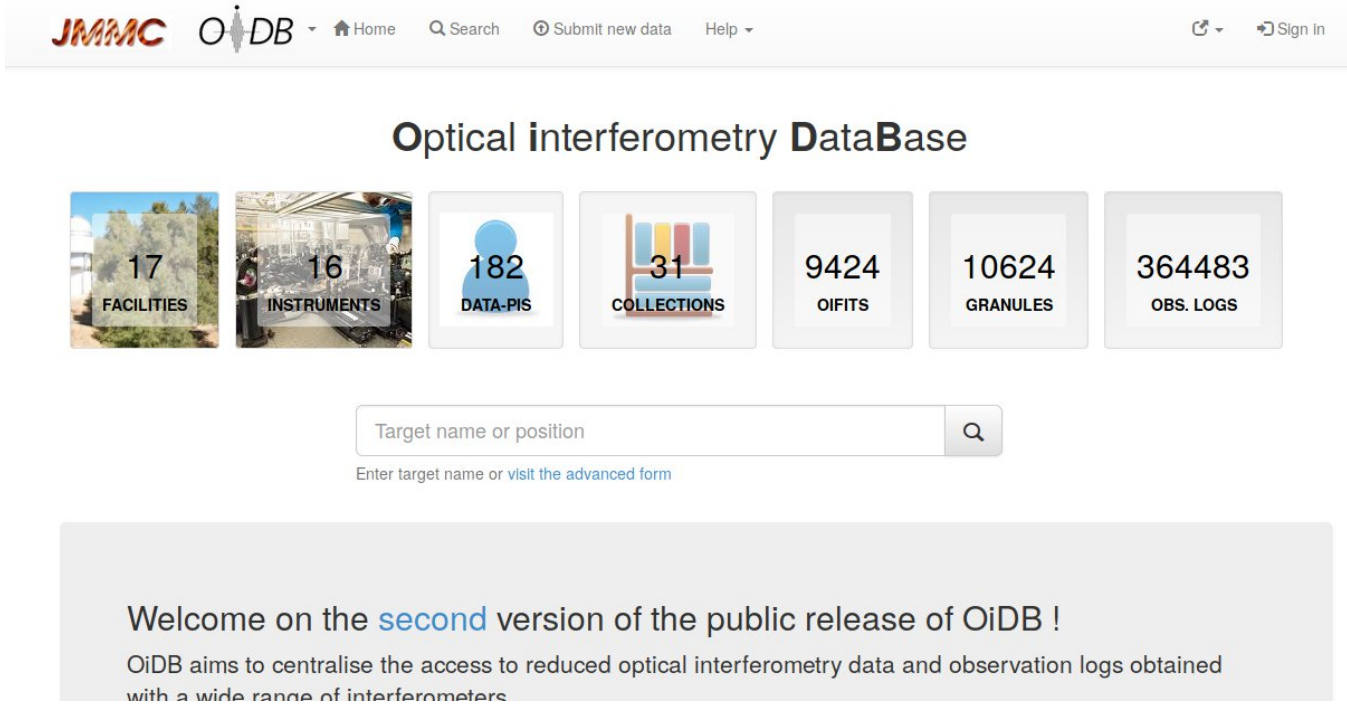
Header count	1014509
Target count	34719
Observation count	46406
Exposure count	332563
Valid exposure count	326476 (98.17%)
Exposure Date min	2003-06-14 07:13:36.000
Exposure Date max	2021-01-18 08:42:29.592
Header last ModificationDate	2021-01-18 15:45:37 UTC+0000

JMMC Obs Portal : feedback on ESO TAP

- ESO TAP dbo.raw table:
  - possible NULL release_date since GRAVI.2020-11-28T03:00:02.623
- ESO OIFITS headers:
  - target identifier : not reliable (free text, may be blank)
  - target coordinates: not reliable (0,0) or pointing coordinates, not epoch 2000 !
  - See:
    - http://obs.jmmc.fr/search?ra=0&dec=0 : (0,0) coords are present !
    - http://obs.jmmc.fr/search?target_name=alf%20cma : Sirius has moving coordinates RA / DEC in OIFITS !
- *Conclusion: target cross-identification (SIMBAD or JSDC) is critical to ensure proper cross-matchs by positions in ASPRO2*

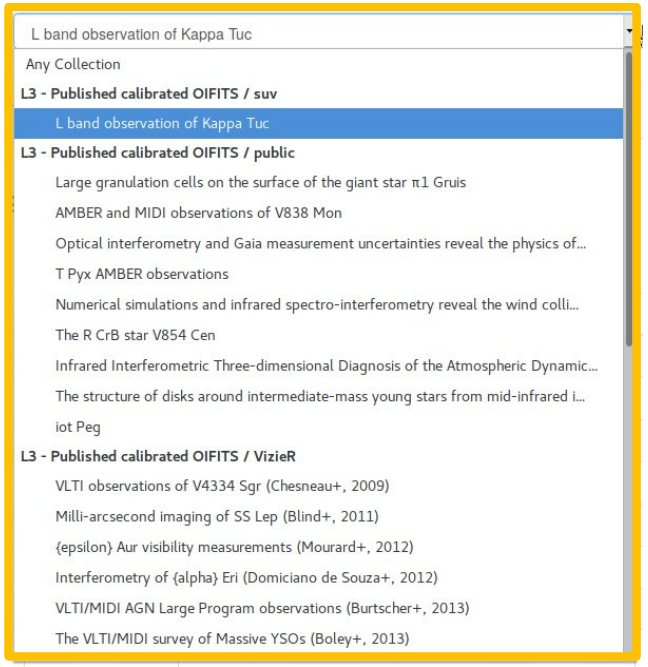
OODB

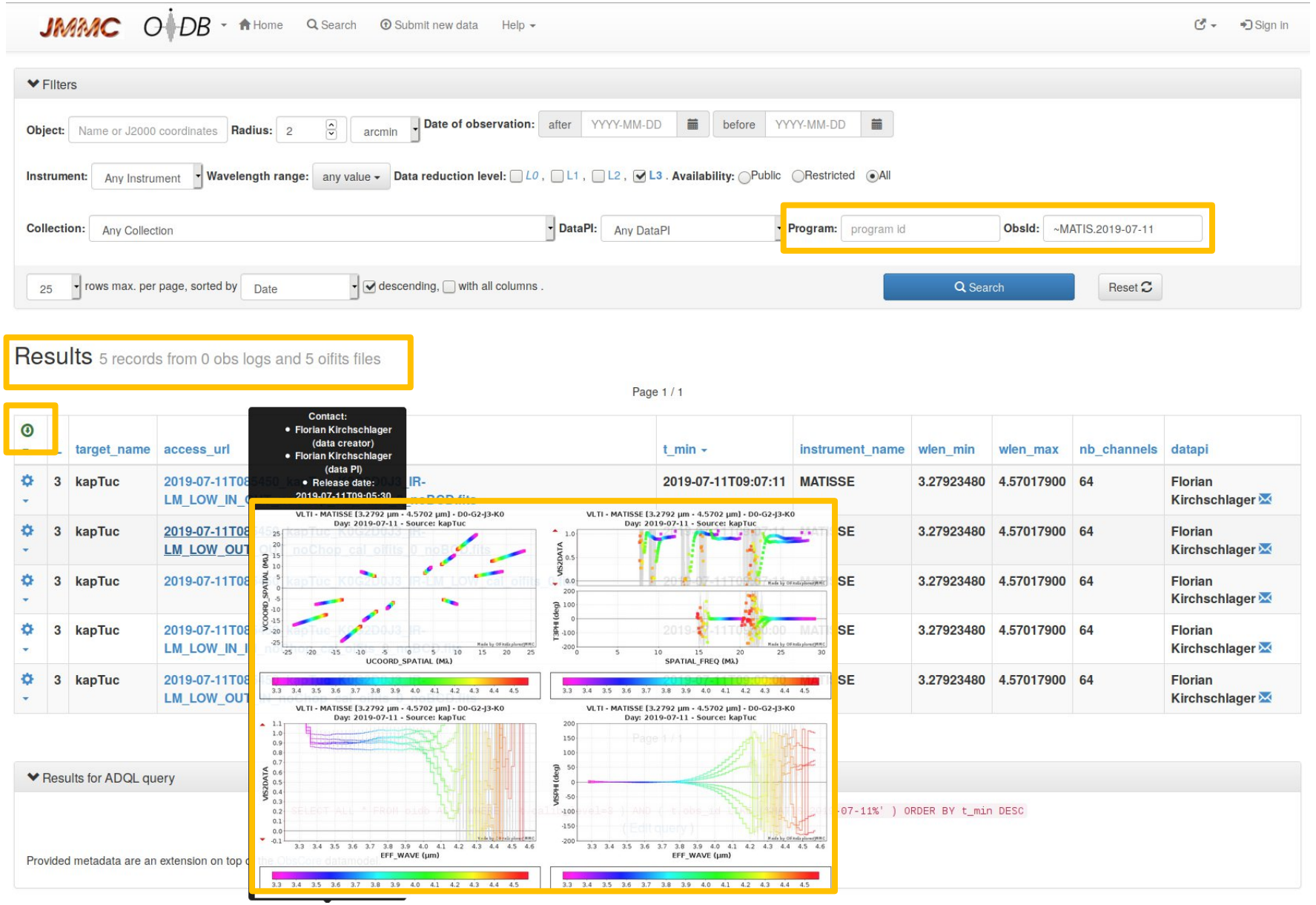
OiDB V2 online



- UI enhancement:
  - search form, result table
  - quick plots / data quality flags
  - show ancillary links accross various calibration levels L(0-3)<->L(0-3)
- New categories for data collections: simulations, private (SUV)
- Better ESO obs log(L0) ingest (through obsportal proxy)
- Provides a reliable release_date to PIONIER L2 collection and VLTI OIfits (was obs_date+1year)

OiDB screenshots of https://oidb.jmmc.fr





JMMC OiDB Home Search Submit new data Dashboard Help Logged in.

Add calibrated OIFITS files

Step 1 : Upload OIFITS files

Target	Instrument	Instrument mode	Time interval	Quality

+ Add files

Step 2 : Choose collection

Create a collection

Append to ...

HD 163296 - Jozsef Varga

Step 3 : Save

JMMC OiDB Home Search Submit new data Dashboard Help Logged in.

Add calibrated OIFITS files

Step 1 : Upload OIFITS files

Target	Instrument	Instrument mode	Time interval	Quality

+ Add files

Step 2 : Choose collection

Collection details

Collection type: public / simulation / SUV

Name: collection name

Title: collection title

Description: ...

Keywords:

Data PI: Guillaume Mella

Step 3 : Save

Save

Cancel

Contact

Data PI / OBS creator

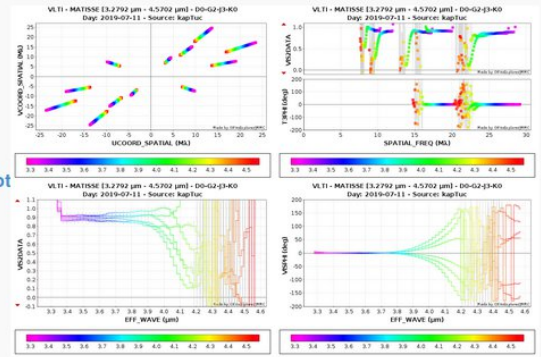
Florian Kirchschlager

Comments

+ Add the first comment

Quicklook plots

Quick plot



Contact

Data PI

Not present in metadata

OBS creator

jmmc-tech-group - Bour

Ancillary data

calib_level	id	obs_collection	datapi
0	1293809	ESO VLTI Import	

Commer

+ Add the first comme

External resources

Details progid *0103.C-0725(A)* on ESO archive

Details progid *0103.C-0725(A)* on JMMC ObsPortal

Check or display content in OIFitsValidator

Ancillary

calib_level			
3	1355457	Kappa Tuc	Florian Kirchschlager
3	1355464	Kappa Tuc	Florian Kirchschlager

External resources

Details progid *0103.C-0725(A)* on ESO archive

Details progid *0103.C-0725(A)* on JMMC ObsPortal

Details exposure *MATIS.2019-07-11T09:03:31.168_1* on JMMC ObsPortal

OiDB future

- Register OiDB in the VO-registry
  - we are building a new common JMMC TAP service that will host OiDB
- Enhance **ingestion and update** process
  - user could edit / fix some descriptive parts, link data...
- Enable dataPI to **share private data** to other cols, **groups**...
- Provide **DOIs** ? per granule, per collection ?

& ... fix some last small points/doc and announce V2 on OLBIN

JSDC 3 / SearchCal 6

Important JSDC upgrade to get latest data from

SIMBAD / GAIA DR2 / MDFC

JSDC3: 475 000 stars ... to 2.5m stars !

- Changes:
  - Crossmatch +++ : best in 3as neighbourhood + XM flags = No duplicates.
    "CalFlag bit 3 set if the star has neighbours within 0.5 as (GAIA) or 1.0 as (2MASS)"
  - Data: SIMBAD, GAIA DR2 (better ra/dec, pm, teff, dist), MDFC (flag, flux)
  - *JSDC3 BRIGHT EA* : http://jmmc.fr/~bourgesl/sclsvr_JSDC/JSDC_2020/LAST/
  - *JSDC3 FAINT EA* : http://jmmc.fr/~bourgesl/sclsvr_JSDC/JSDC_FAINT_2020/LAST/

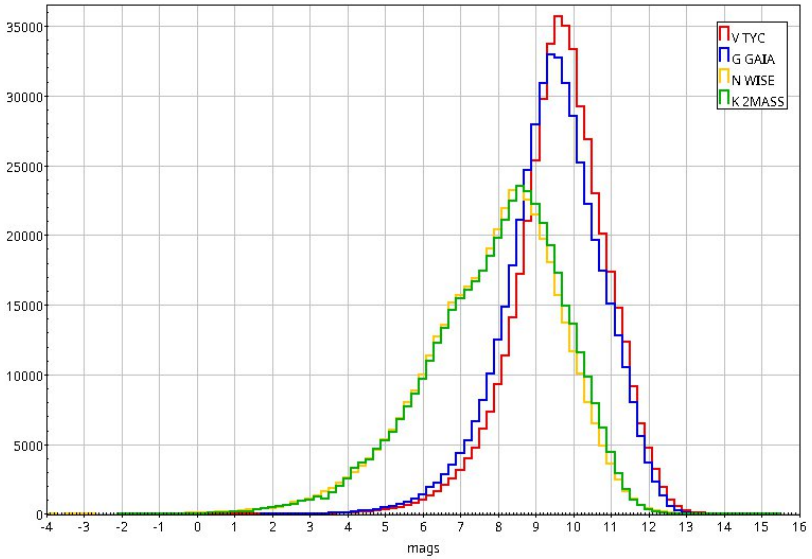
Services: SearchCal 6 EA: 2021 ? GetStar EA

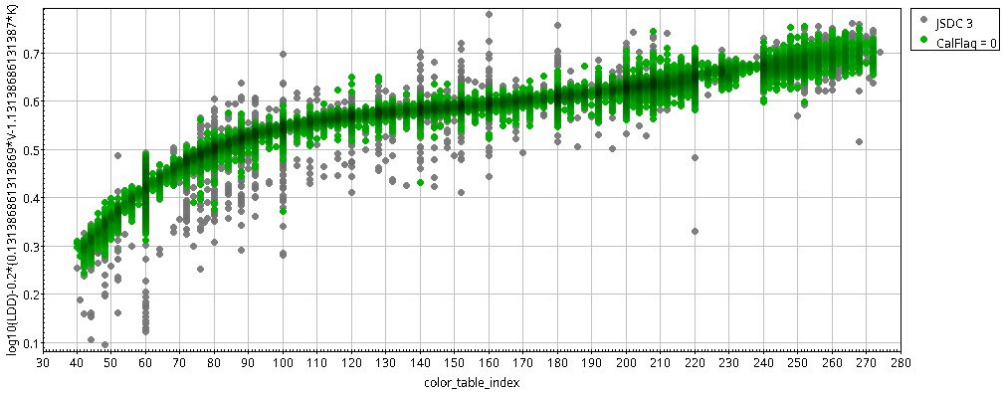
- Perspectives:
  - Publish both Bright / Faint catalogs : 2.5m star (TYCHO2) in JMMC TAP interface + CDS
  - Update GAIA Early DR3 ?
  - Future: use JMDC and new color GAIA (G, Bp, Rp) + All Wise (L, M, N)

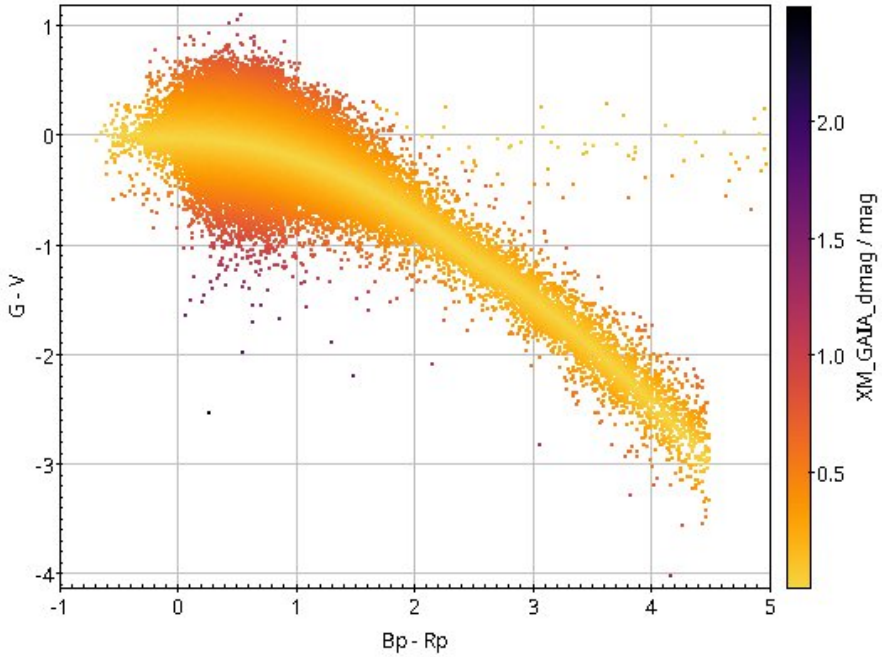
JSDC 3 BRIGHT EA:

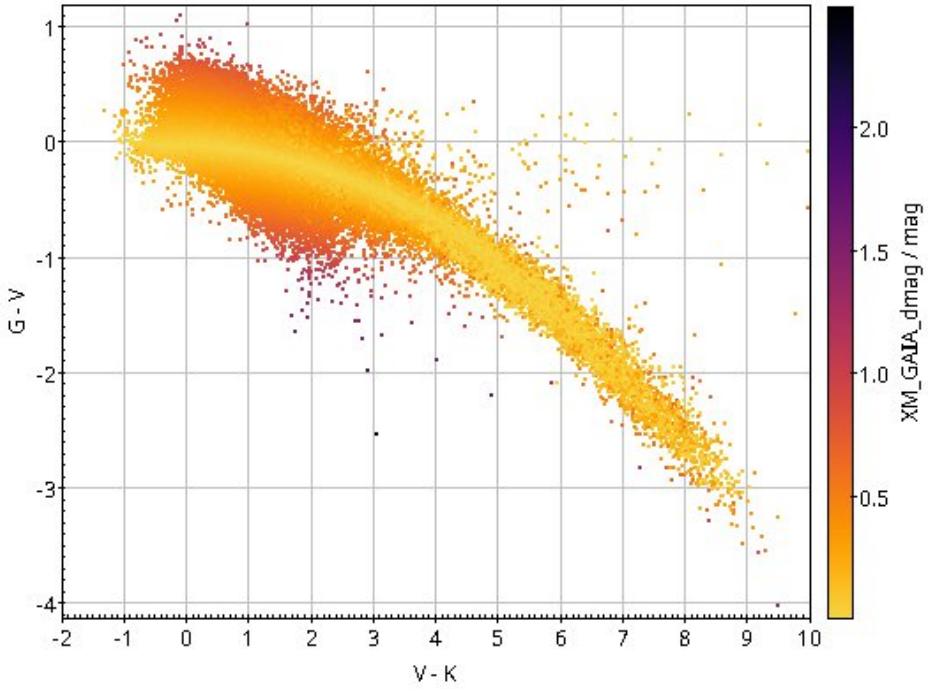
Total Rows: 474963

column	good
SIMBAD	474963
GAIA	471475
TYC1	473651
TYC2	473651
TYC3	474963
2MASS	474963
WISE	470294
AKARI	153541
HD	245091
HIP	105272
DM	348198
SBC9	2454
WDS	39400









Next operations (mid / long term)

- Enhance consistency with ESO :
  - update A2P2 for MATISSE
  - fix Aspro Configuration on some (borderline) configurations (UT shadowing, switchyard)
- Update LITpro / OIMaging :
  - UI enhancements
  - Fix performance issues (be ready for next VLTI School)
  - Release new algorithms (genetic fitter, polychromatic data)
- Enhance ObsPortal / OiDB capabilities to link and share more data
- Continue to open more codes :
  - https://github.com/JMMC-OpenDev/
  - https://gricad-gitlab.univ-grenoble-alpes.fr/OSUG/JMMC
- Enhance OLBIN's publication database portal (ADS API, improve update)
  - Please contact us if you want to help and tag missing OLBIN papers
- AOB...