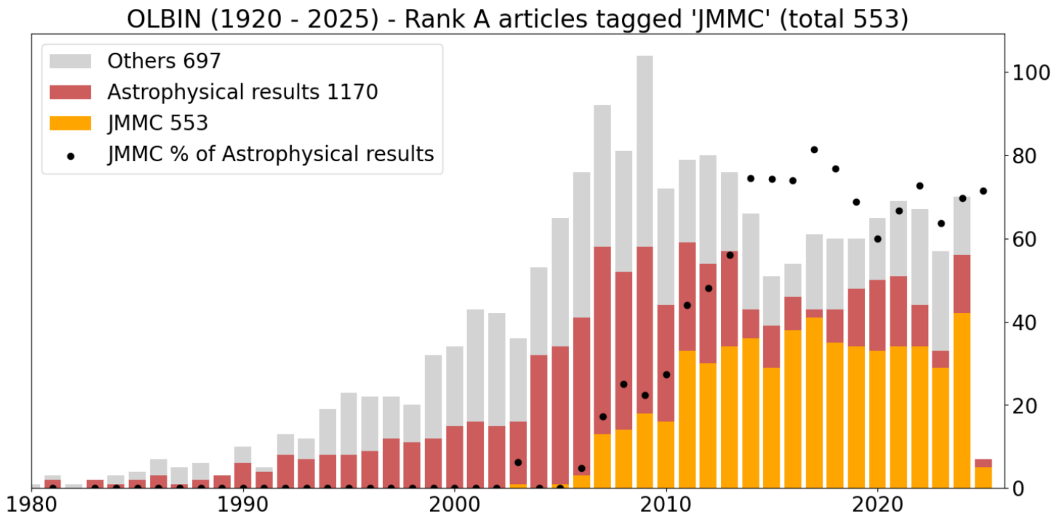
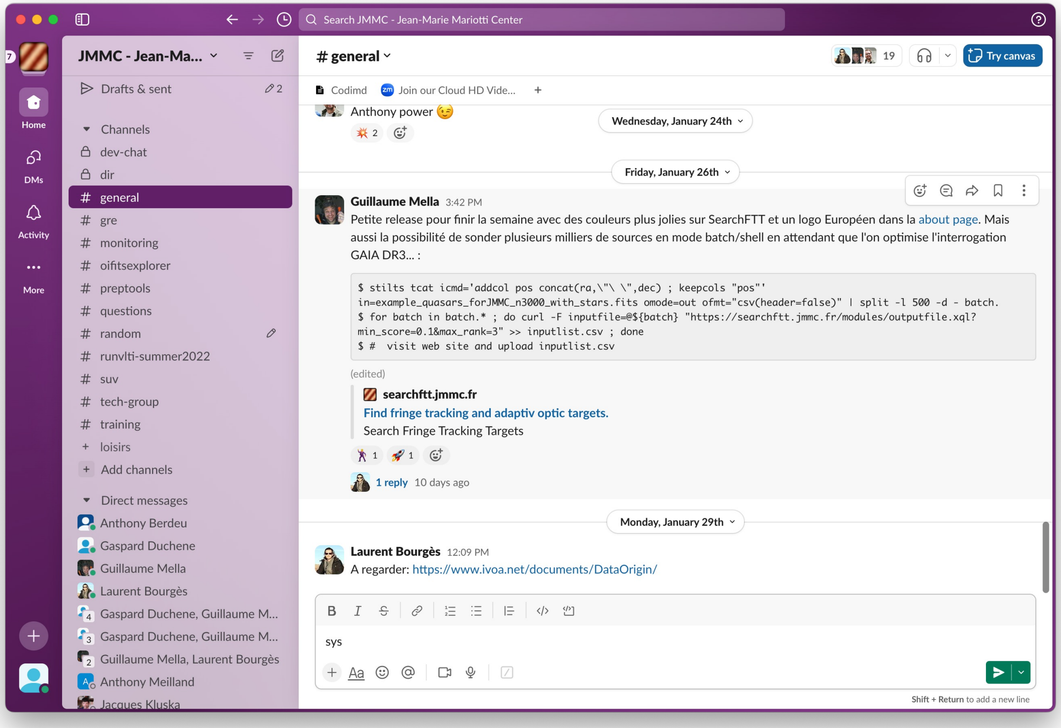
Un point JMMC-MOIO (2025)

https://www.jmmc.fr/doc/approved/JMMC-TRE-0000-0015.pdf


OLBIN (1920 - 2025) - Rank A articles tagged 'JMMC' (total 553)

JMMC-MOIO

jmmc-activities.slack.com


Search JMMC - Jean-Marie Mariotti Center
JMMC - Jean-Ma...
Drafts & sent
Home
DMs
Activity
More
Channels
dev-chat
dir
general
gre
monitoring
oiftsexplorer
preptools
questions
random
runvlti-summer2022
suv
tech-group
training
loisirs
Add channels
Direct messages
Anthony Berdeu
Gaspard Duchene
Guillaume Mella
Laurent Bourgès
Gaspard Duchene, Guillaume M...
Gaspard Duchene, Guillaume M...
Guillaume Mella, Laurent Bourgès
Anthony Meilland
Jacques Kluska
# general
19
Try canvas
Codimd
Join our Cloud HD Vide...
Wednesday, January 24th
Friday, January 26th
Monday, January 29th
Shift + Return to add a new line

Anthony power 😉

Guillaume Mella 3:42 PM

Petite release pour finir la semaine avec des couleurs plus jolies sur SearchFTT et un logo Européen dans la about page. Mais aussi la possibilité de sonder plusieurs milliers de sources en mode batch/shell en attendant que l'on optimise l'interrogation GAIA DR3... :

```
$ stilts tcat icmd='addcol pos concat(ra,\"\ \",dec) ; keepcols "pos"'
in=example_quasars_forJMMC_n3000_with_stars.fits omode=out ofmt="csv(header=false)" | split -l 500 -d - batch.
$ for batch in batch.* ; do curl -F inputfile=@${batch} "https://searchftt.jmmc.fr/modules/outputfile.xql?
min_score=0.1&max_rank=3" >> inputlist.csv ; done
$ #  visit web site and upload inputlist.csv
```

(edited)

searchftt.jmmc.fr

Find fringe tracking and adaptiv optic targets.

Search Fringe Tracking Targets

1 reply 10 days ago

Laurent Bourgès 12:09 PM

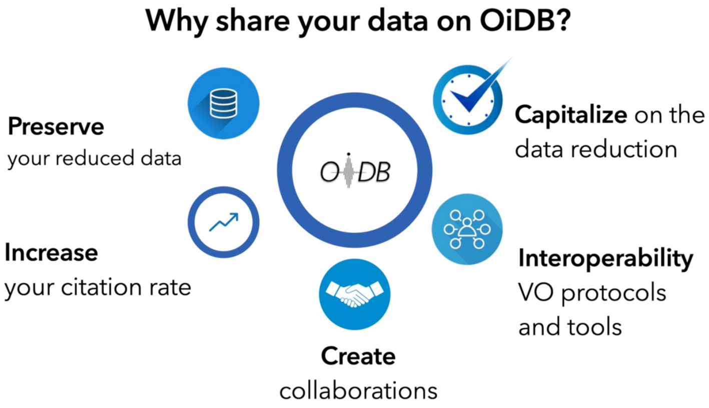
A regarder: https://www.ivoa.net/documents/DataOrigin/

sys

- Ingénieurs:
- OSUG: L. Bourgès, G. Mella
- Guillaume Verbiese (OCA)
- Chercheurs:
- OSUG: JPB, G. Duchène, J.-B. Le Bouquin
- OCA: A. Matter, A. Domiciano, M. Benisty, A. Chelli
- OSUL: I. Tallon-Bosc, F. Soulez, E. Thiébaut, M. Tallon

JMMC-MOIO n’est pas un cercle fermé. Contributions welcome !

OIDB (Gaspard)



Why share your data on OiDB?

Preserve your reduced data

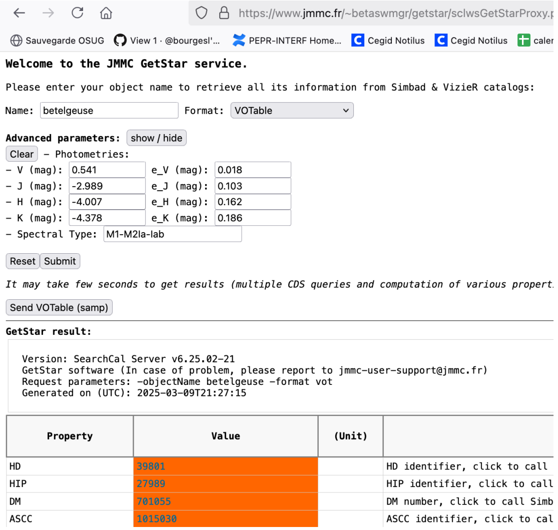
Increase your citation rate

Create collaborations

Capitalize on the data reduction

Interoperability VO protocols and tools

JSDC -3 (Laurent)



https://www.jmmc.fr/~betaswmgr/getstar/sclwsGetStarProxy.p
Sauvegarde OSUG
View 1 · @bourgesl'...
PEPR-INTERF Home...
Cegid Notilus
Cegid Notilus
caler
show / hide
Clear
Reset
Submit
Send VOTable (samp)

Welcome to the JMMC GetStar service.

Please enter your object name to retrieve all its information from Simbad & VizieR catalogs:

Name: betelgeuse Format: VOTable

Advanced parameters:

– Photometries:

- V (mag): 0.541 e_V (mag): 0.018
- J (mag): -2.989 e_J (mag): 0.103
- H (mag): -4.007 e_H (mag): 0.162
- K (mag): -4.378 e_K (mag): 0.186
- Spectral Type: M1-M2Ia-Iab

It may take few seconds to get results (multiple CDS queries and computation of various propert

GetStar result:

```
Version: SearchCal Server v6.25.02-21
GetStar software (In case of problem, please report to jmmc-user-support@jmmc.fr)
Request parameters: -objectName betelgeuse -format vot
Generated on (UTC): 2025-03-09T21:27:15
```

Property	Value	(Unit)	
HD	39801		HD identifier, click to call
HIP	27989		HIP identifier, click to call
DM	701055		DM number, click to call Simb
ASCC	1015030		ASCC identifier, click to cal

AMHRA (Armando)

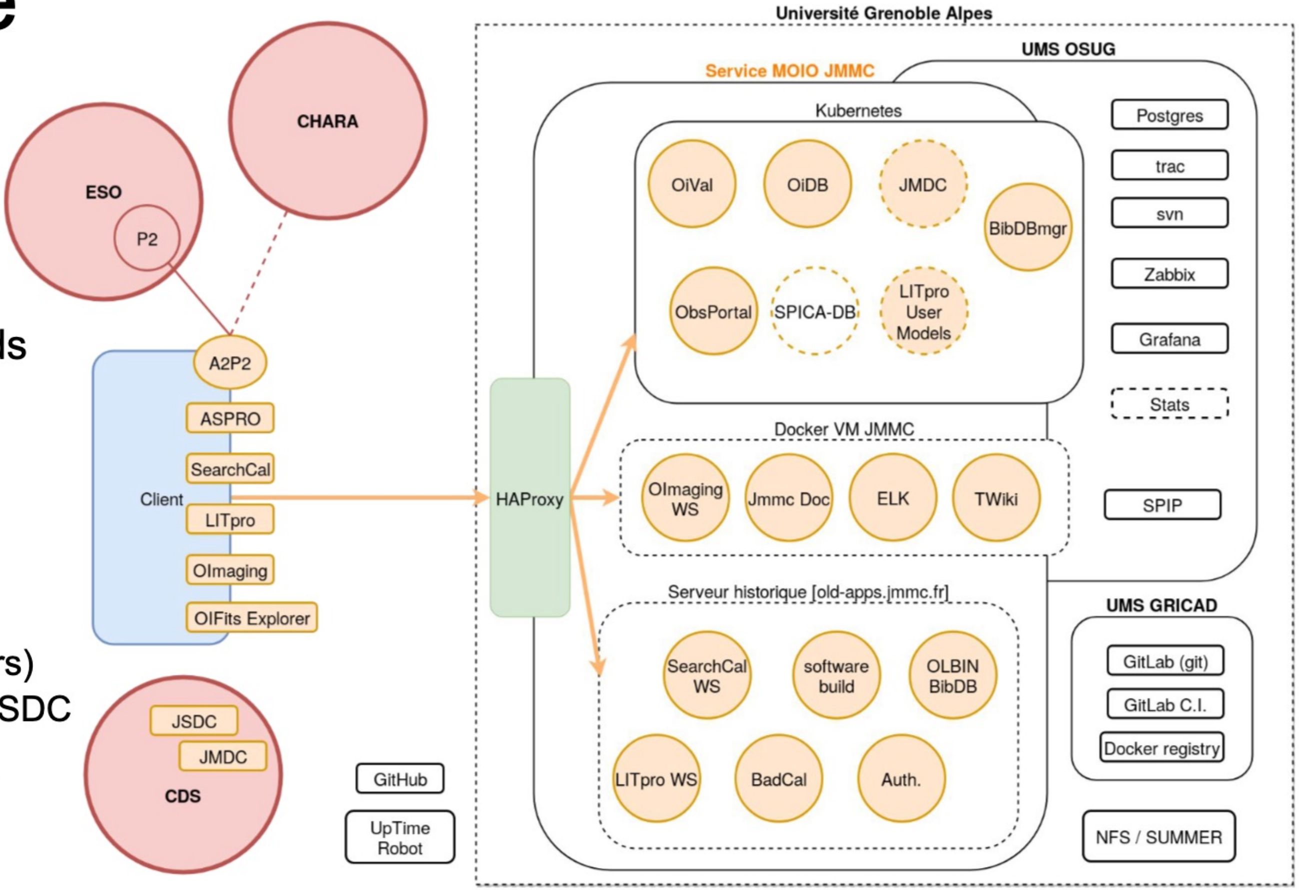
AMHRA MOIO/JMMC

(ANALYSE ET MODÉLISATION EN HRA)

HTTPS://AMHRA.OCA.EU/AMHRA/INDEX.HTM

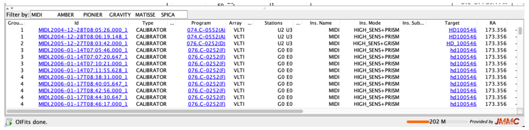
Infrastructure @OSUG

- Datastore : 2 TB
- HAProxy : ~ 50 backends
- 6 VMs
  - 8 containers
- 15 pods K8S
- Databases :
  - 5 postgres databases (OSUG) + 1 mysql (users)
  - New SPICA, JMDC & JSDC catalogs stored on the shared postgres server


ESO
P2
CHARA
A2P2
ASPRO
SearchCal
Client
LITpro
OImaging
OIFits Explorer
JSDC
JMDC
CDS
GitHub
UpTime Robot
HAProxy
Université Grenoble Alpes
Service MOIO JMMC
UMS OSUG
Kubernetes
OiVal
OiDB
JMDC
BibDBmgr
ObsPortal
SPICA-DB
LITpro User Models
Docker VM JMMC
OImaging WS
Jmmc Doc
ELK
TWiki
Serveur historique [old-apps.jmmc.fr]
SearchCal WS
software build
OLBIN BibDB
LITpro WS
BadCal
Auth.
Postgres
trac
svn
Zabbix
Grafana
Stats
SPIP
UMS GRICAD
GitLab (git)
GitLab C.I.
Docker registry
NFS / SUMMER

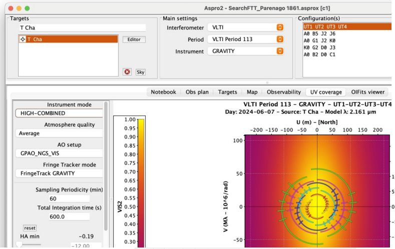
Encore beaucoup de services à maintenir et transférer
dans la nouvelle infrastructure

Aspro2 : preparing proposals

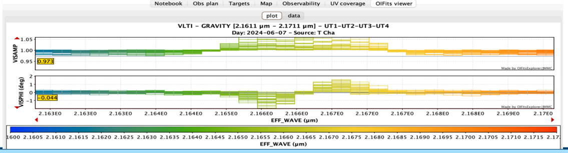


Obs Portal

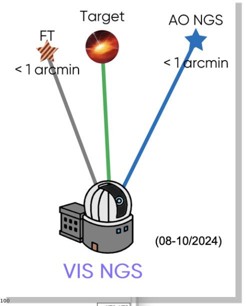
Object Modelling



Aspro2 - SearchFTT_Parenago 1861.asprox
Targets
Main settings
Interferometer VLTI
Period VLTI Period 113
Instrument GRAVITY
VLTI Period 113 - GRAVITY - UT1-UT2-UT3-UT4
U (m) - [North]
VIS2



VLTI - GRAVITY [2.1611 µm - 2.1711 µm] - UT1-UT2-UT3-UT4
Day: 2024-06-07 - Source: T Cha
VISAMP
VISPHI (deg)
EFF_WAVE (µm)

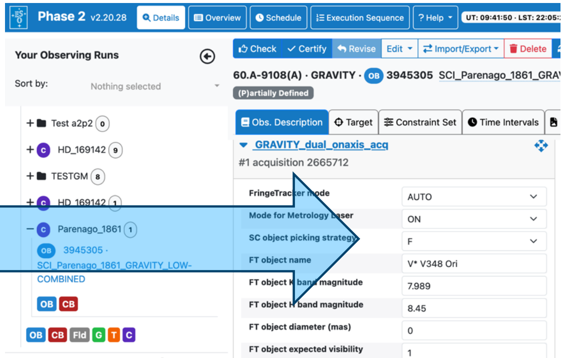


Target
FT
AO NGS
< 1 arcmin
< 1 arcmin
(08-10/2024)
VIS NGS

Calibration

JSDC

a2p2



Phase 2 v2.20.28
Details
Overview
Schedule
Execution Sequence
? Help
Check
Certify
Revise
Edit
Import/Export
Delete
Obs. Description
Target
Constraint Set
Time Intervals
OB
CB
Fld
G
T
C

UT: 09:41:50 · LST: 22:05:

Your Observing Runs

Sort by: Nothing selected

- Test a2p2 (0)
- HD_169142 (9)
- TESTGM (8)
- HD_169142 (1)
- Parenago_1861 (1)
  - 3945305 · SCI_Parenago_1861_GRAVITY_LOW-COMBINED

60.A-9108(A) · GRAVITY · OB 3945305 SCI_Parenago_1861_GRAV

(P)artially Defined

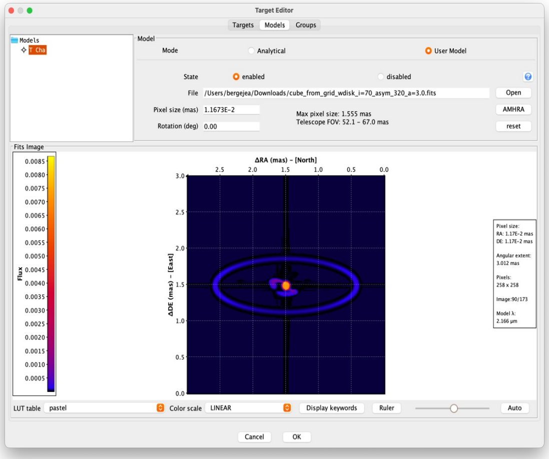
GRAVITY_dual_onaxis_acq

#1 acquisition 2665712

FringeTracker mode	AUTO
Mode for Metrology laser	ON
SC object picking strategy	F
FT object name	V* V348 Ori
FT object K band magnitude	7.989
FT object H band magnitude	8.45
FT object diameter (mas)	0
FT object expected visibility	1
name	Parenago 1861
K band magnitude	9.83
diameter (mas)	0

Checking previous observations

- Analytical
- User provided
- AMHRA Db



Target Editor
Targets
Models
Groups
Models
T Cha
Open
AMHRA
reset
Fits Image
Flux
ΔRA (mas) - [North]
ΔDE (mas) - [East]
Display keywords
Ruler
Auto
Cancel
OK

Model

Mode: ○ Analytical ● User Model

State: ● enabled ○ disabled

File: /Users/bergejea/Downloads/cube_from_grid_wdisk_i=70_asym_320_a=3.0.fits

Pixel size (mas): 1.1673E-2

Rotation (deg): 0.00

Max pixel size: 1.555 mas
Telescope FOV: 52.1 - 67.0 mas

Pixel size:
RA: 1.17E-2 mas
DE: 1.17E-2 mas

Angular extent:
3.012 mas

Pixels:
258 x 258

Image:90/173

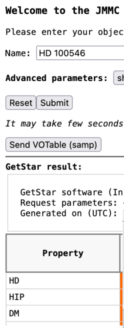
Model λ:
2.166 µm

LUT table: pastel

Color scale: LINEAR

Simulating observability

Get Star



Welcome to the JMMC GetS

Please enter your object name

Name: HD 100546

Advanced parameters: show / h

Reset Submit

It may take few seconds to ge

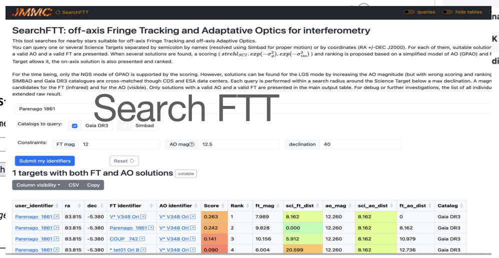
Send VOTable (samp)

GetStar result:

```
GetStar software (In case of problem, please report to jmmc-user-suppor
Request parameters: -objectName HD 100546 -format vot
Generated on (UTC):
```

Property
HD
HIP
DM

Search FTT



JMMC
SearchFTT
queries
hide tables
Submit my identifiers
Reset
votable
Column visibility
CSV
Copy

SearchFTT: off-axis Fringe Tracking and Adaptative Optics for interferometry

This tool searches for nearby stars suitable for off-axis Fringe Tracking and off-axis Adaptive Optics.
You can query one or several Science Targets separated by semicolon by names (resolved using Simbad for proper motion) or by coordinates (RA +/-DEC J2000). For each of them, suitable solution a valid AO and a valid FT are presented. When several solutions are found, a scoring ($strehl_{SCI}.exp(-\sigma_\phi^2).exp(-\sigma_{iso}^2)$) and ranking is proposed based on a simplified model of AO (GPAO) and f Target allows it, the on-axis solution is also presented and ranked.

For the time being, only the NGS mode of GPAO is supported by the scoring. However, solutions can be found for the LGS mode by increasing the AO magnitude (but with wrong scoring and ranking SIMBAD and Gaia DR3 catalogues are cross-matched though CDS and ESA data centers. Each query is performed within a search radius around the Science Target below a max declination. A magn candidates for the FT (infrared) and for the AO (visible). Only solutions with a valid AO and a valid FT are presented in the main output table. For debug or further investigations, the list of all individu extended raw result.

Parenago 1861

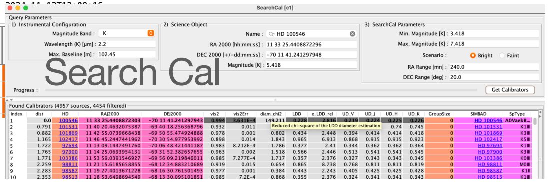
Catalogs to query: ☑ Gaia DR3 ☐ Simbad

Constraints: FT mag 12 AO mag 12.5 declination 40

1 targets with both FT and AO solutions

user_identifier	ra	dec	FT identifier	AO identifier	Score	Rank	ft_mag	sci_ft_dist	ao_mag	sci_ao_dist	ft_ao_dist	Catalog
Parenago 1861	83.815	-5.380	V* V348 Ori	V* V348 Ori	0.263	1	7.989	8.162	12.260	8.162	0	Gaia DR3
Parenago 1861	83.815	-5.380	Parenago 1861	V* V348 Ori	0.242	2	9.828	0.000	12.260	8.162	8.162	Gaia DR3
Parenago 1861	83.815	-5.380	COUP 742	V* V348 Ori	0.141	3	10.156	5.912	12.260	8.162	10.979	Gaia DR3
Parenago 1861	83.815	-5.380	* tet01 Ori B	V* V348 Ori	0.090	4	6.004	20.599	12.260	8.162	12.736	Gaia DR3

Search Cal



SearchCal [c1]
Get Calibrators

Query Parameters

1) Instrumental Configuration
Magnitude Band : K
Wavelength (K) [µm] : 2.2
Max. Baseline [m] : 102.45

2) Science Object
Name : HD 100546
RA 2000 [hh:mm:ss] : 11 33 25.4408872296
DEC 2000 [+/-dd:mm:ss] : -70 11 41.241297948
Magnitude [K] : 5.418

3) SearchCal Parameters
Min. Magnitude [K] : 3.418
Max. Magnitude [K] : 7.418
Scenario: ● Bright ○ Faint
RA Range [min] : 240.0
DEC Range [deg] : 20.0

Progress :

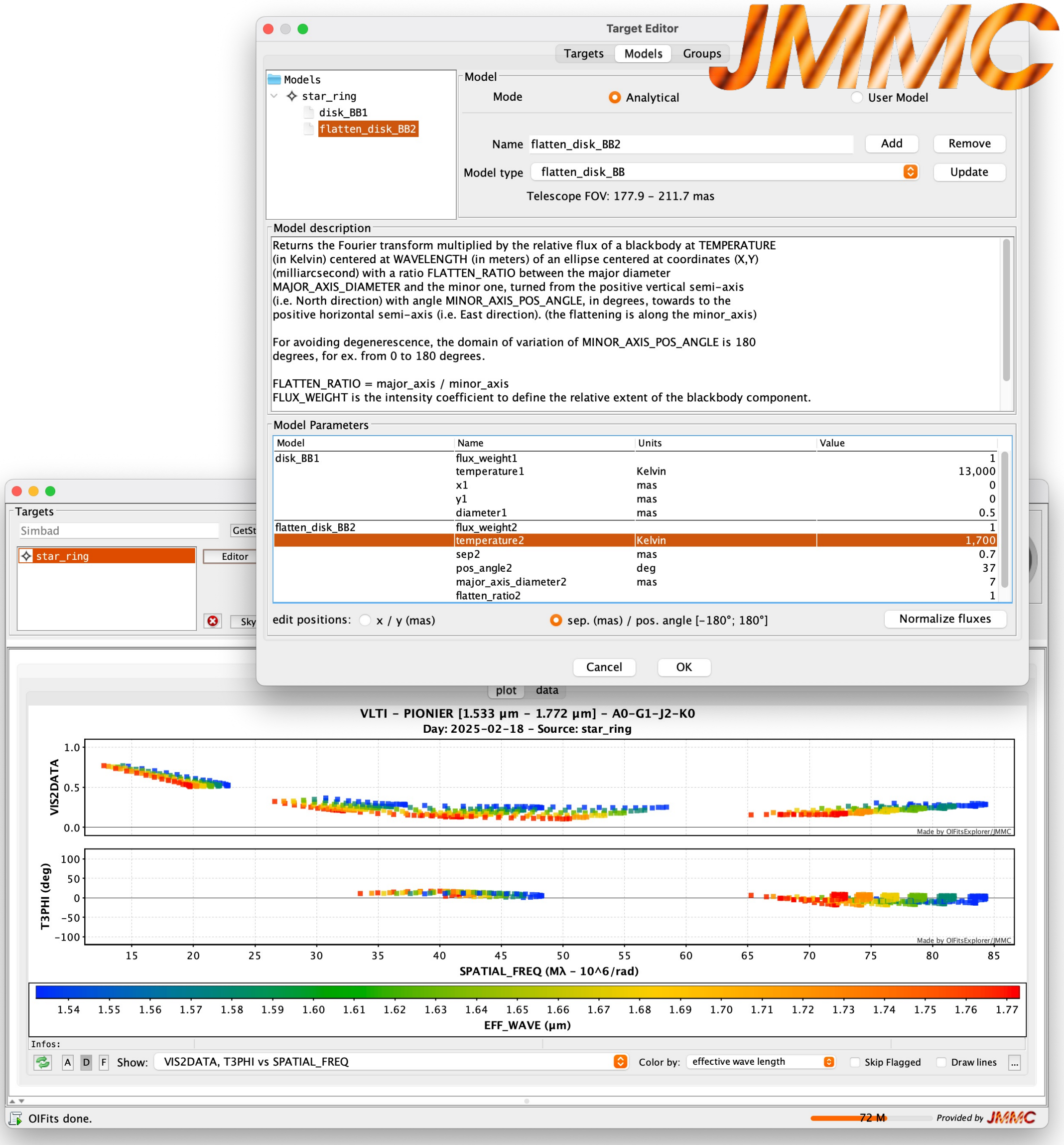
Found Calibrators (4957 sources, 4454 filtered)

Index	dist	HD	RAJ2000	DEJ2000	vis2	vis2Err	diam_chi2	LDD
1	0.0	100546	11 33 25.4408872303	-70 11 41.241297943	0.994	3.631E-4	149.211	0.228
2	0.791	101531	11 40 20.4632075387	-69 40 18.256368796	0.932	0.011		
3	0.882	101869	11 42 55.0739668438	-69 50 55.474924888	0.978	0.001	0.802	0.434
4	1.165	102417	11 46 45.2447441962	-70 30 54.977953992	0.898	0.014	1.843	0.965
5	1.722	97694	11 13 09.1447491760	-70 06 48.421441187	0.983	8.212E-4	1.786	0.377
6	1.765	97900	11 14 25.0693954131	-69 31 52.382657655	0.963	0.002	1.518	0.566
7	1.771	103386	11 53 59.0391546927	-69 56 09.219846011	0.985	7.277E-4	1.717	0.357
8	2.259	98811	11 21 15.6185658855	-68 12 34.883210689	0.919	0.015	0.654	0.865
9	2.283	98587	11 19 27.4013671228	-68 16 30.761501493	0.977	0.001	0.384	0.443
10	2.353	98513	11 18 53.6498694549	-68 13 30.095101851	0.985	7.2E-4	0.868	0.355

Reduced chi-square of the

Chromaticité Aspro2

1) Las modèles analytiques d'Aspro2 peuvent se voire associer une température (corps noir).
2) Magnitude fixée par le choix de l'objet.
3) Pas de combinaison objet gris + corps noir
4) => en Beta, retours bienvenus


Target Editor
Targets
Models
Groups
Models
star_ring
disk_BB1
flatten_disk_BB2
Model
Mode
● Analytical
○ User Model
Add
Remove
Update
Targets
Simbad
star_ring
Editor
Sky
plot
data
Infos:
Skip Flagged
Draw lines
OIFits done.
72 M
Provided by JMMC

Name flatten_disk_BB2

Model type flatten_disk_BB

Telescope FOV: 177.9 – 211.7 mas

Model description

Returns the Fourier transform multiplied by the relative flux of a blackbody at TEMPERATURE (in Kelvin) centered at WAVELENGTH (in meters) of an ellipse centered at coordinates (X,Y) (milliarcsecond) with a ratio FLATTEN_RATIO between the major diameter MAJOR_AXIS_DIAMETER and the minor one, turned from the positive vertical semi–axis (i.e. North direction) with angle MINOR_AXIS_POS_ANGLE, in degrees, towards to the positive horizontal semi–axis (i.e. East direction). (the flattening is along the minor_axis)

For avoiding degenerescence, the domain of variation of MINOR_AXIS_POS_ANGLE is 180 degrees, for ex. from 0 to 180 degrees.

FLATTEN_RATIO = major_axis / minor_axis
FLUX_WEIGHT is the intensity coefficient to define the relative extent of the blackbody component.

Model Parameters

Model	Name	Units	Value
disk_BB1	flux_weight1		1
	temperature1	Kelvin	13,000
	x1	mas	0
	y1	mas	0
	diameter1	mas	0.5
flatten_disk_BB2	flux_weight2		1
	temperature2	Kelvin	1,700
	sep2	mas	0.7
	pos_angle2	deg	37
	major_axis_diameter2	mas	7
	flatten_ratio2		1

edit positions: ○ x / y (mas) ● sep. (mas) / pos. angle [−180°; 180°] Normalize fluxes

Cancel OK

VLTI – PIONIER [1.533 µm – 1.772 µm] – A0-G1-J2-K0
Day: 2025-02-18 – Source: star_ring

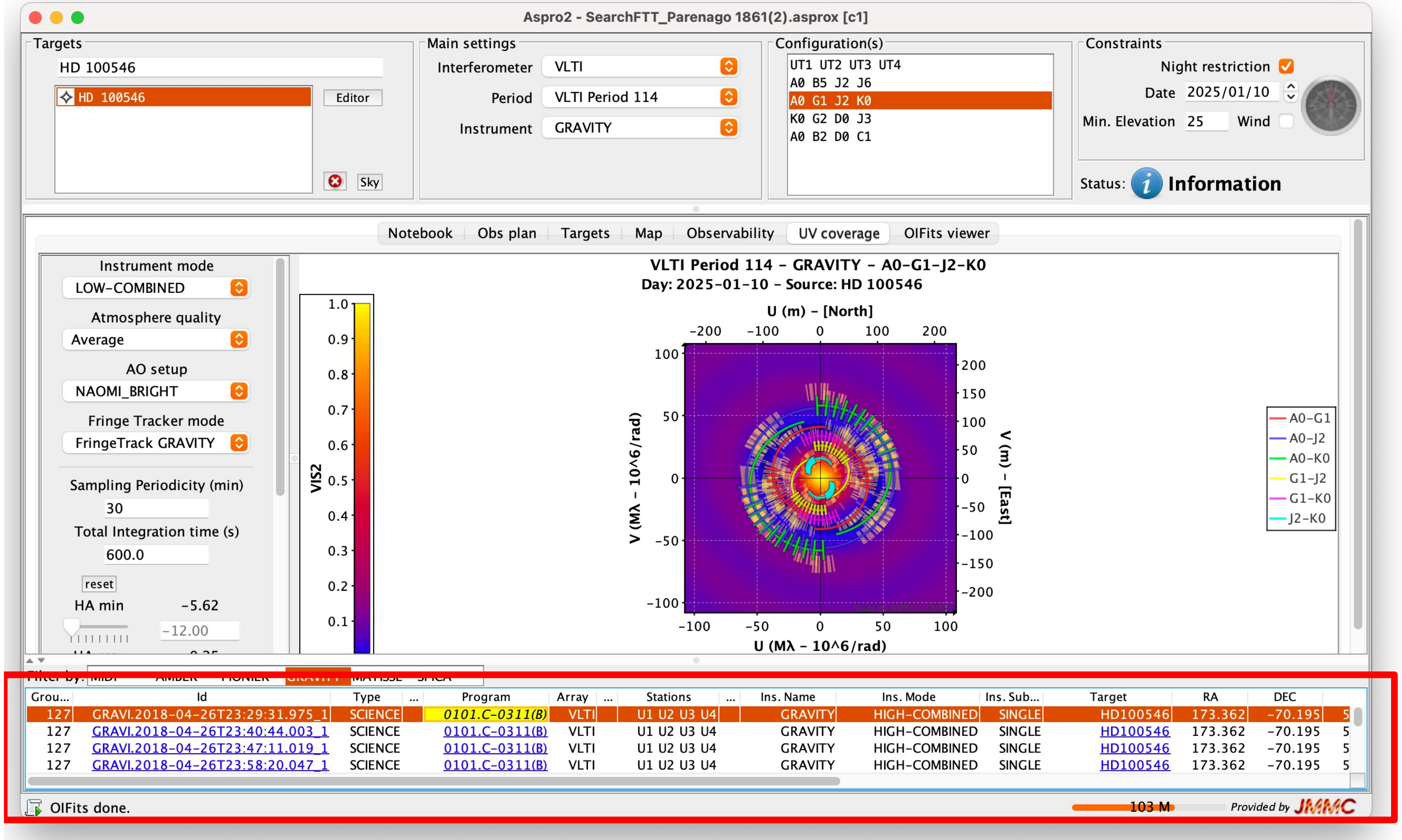
VIS2DATA
1.0
0.5
0.0
T3PHI (deg)
100
50
0
−50
−100
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
SPATIAL_FREQ (Mλ – 10^6/rad)
1.54
1.55
1.56
1.57
1.58
1.59
1.60
1.61
1.62
1.63
1.64
1.65
1.66
1.67
1.68
1.69
1.70
1.71
1.72
1.73
1.74
1.75
1.76
1.77
EFF_WAVE (µm)
Made by OIFitsExplorer/JMMC

Show: VISDATA, T3PHI vs SPATIAL_FREQ

Color by: effective wave length

Aspro2 & ObsPortal

JMMC


Aspro2 - SearchFTT_Parenago 1861(2).asprox [c1]
Editor
Sky
Notebook
Obs plan
Targets
Map
Observability
UV coverage
OIFits viewer
reset
VLTI Period 114 – GRAVITY – A0-G1-J2-K0
Day: 2025-01-10 – Source: HD 100546
U (m) – [North]
V (Mλ – 10^6/rad)
V (m) – [East]
U (Mλ – 10^6/rad)
VIS2
A0-G1
A0-J2
A0-K0
G1-J2
G1-K0
J2-K0
Filter by: MIDI AMBER PIONIER GRAVITY MATISSE SPICA
103 M
Provided by JMMC

Targets: HD 100546

Main settings
Interferometer: VLTI
Period: VLTI Period 114
Instrument: GRAVITY

Configuration(s)
UT1 UT2 UT3 UT4
A0 B5 J2 J6
A0 G1 J2 K0
K0 G2 D0 J3
A0 B2 D0 C1

Constraints
Night restriction ☑
Date: 2025/01/10
Min. Elevation: 25
Wind ☐
Status: Information

Instrument mode: LOW-COMBINED
Atmosphere quality: Average
AO setup: NAOMI_BRIGHT
Fringe Tracker mode: FringeTrack GRAVITY
Sampling Periodicity (min): 30
Total Integration time (s): 600.0
HA min: -5.62 / -12.00

Grou...	Id	Type	...	Program	Array	...	Stations	...	Ins. Name	Ins. Mode	Ins. Sub...	Target	RA	DEC	
127	GRAVI.2018-04-26T23:29:31.975_1	SCIENCE		0101.C-0311(B)	VLTI		U1 U2 U3 U4		GRAVITY	HIGH-COMBINED	SINGLE	HD100546	173.362	-70.195	5
127	GRAVI.2018-04-26T23:40:44.003_1	SCIENCE		0101.C-0311(B)	VLTI		U1 U2 U3 U4		GRAVITY	HIGH-COMBINED	SINGLE	HD100546	173.362	-70.195	5
127	GRAVI.2018-04-26T23:47:11.019_1	SCIENCE		0101.C-0311(B)	VLTI		U1 U2 U3 U4		GRAVITY	HIGH-COMBINED	SINGLE	HD100546	173.362	-70.195	5
127	GRAVI.2018-04-26T23:58:20.047_1	SCIENCE		0101.C-0311(B)	VLTI		U1 U2 U3 U4		GRAVITY	HIGH-COMBINED	SINGLE	HD100546	173.362	-70.195	5

OIFits done.

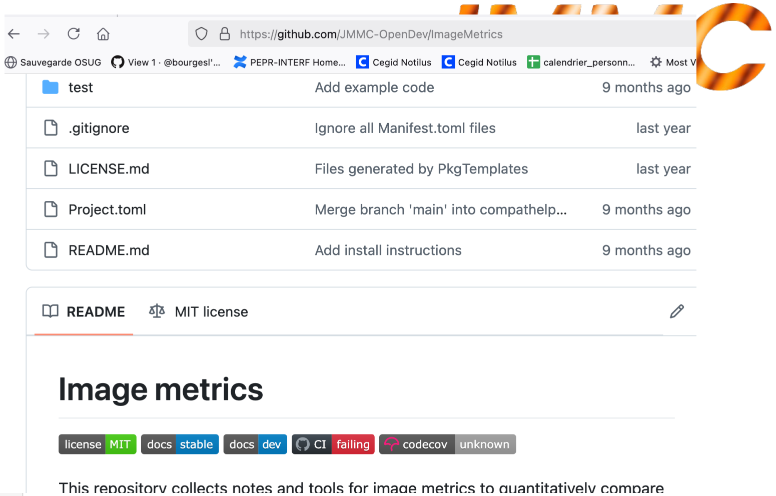
- **ObsPortal:** accès aux logs des observations
  - Bientôt CHARA IR et SPICA !!!!

- **oitools:** calcul en ligne de commande

```
java -jar Aspro2.jar -process -input oifitsfile.fits -image image.fits -output output.fits -scale pixel_scale_in_mas
```

Métrique

- https://jmmc-opendev.github.io/ImageMetrics/dev/
- Dépôt github développant les métriques de comparaison d'images reconstruites dans le contexte des challenges de données interférométrqiues
- A l'ambition de mettre en valeur des codes implémentant le calcul de ces métriques.
- Documentation détaillée.


https://github.com/JMMC-OpenDev/ImageMetrics
Sauvegarde OSUG
View 1 · @bourgesl'...
PEPR-INTERF Home...
Cegid Notilus
Cegid Notilus
calendrier_personn...
Most V
README
MIT license
license MIT
docs stable
docs dev
CI failing
codecov unknown

test	Add example code	9 months ago
.gitignore	Ignore all Manifest.toml files	last year
LICENSE.md	Files generated by PkgTemplates	last year
Project.toml	Merge branch 'main' into compathelp...	9 months ago
README.md	Add install instructions	9 months ago

Image metrics

This repository collects notes and tools for image metrics to quantitatively compare

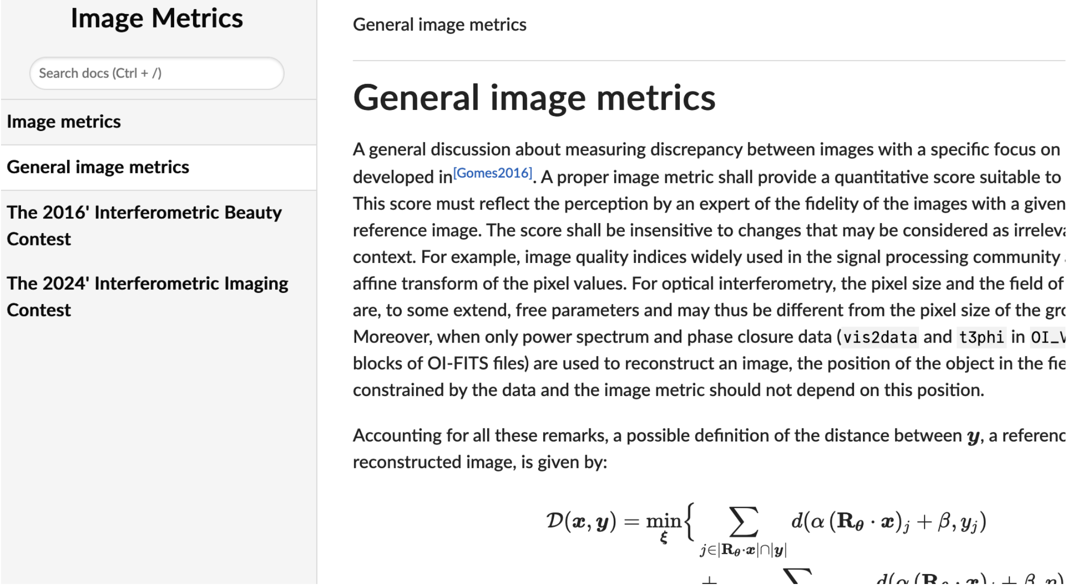


Image Metrics
Search docs (Ctrl + /)
Image metrics
General image metrics
The 2016' Interferometric Beauty Contest
The 2024' Interferometric Imaging Contest
General image metrics

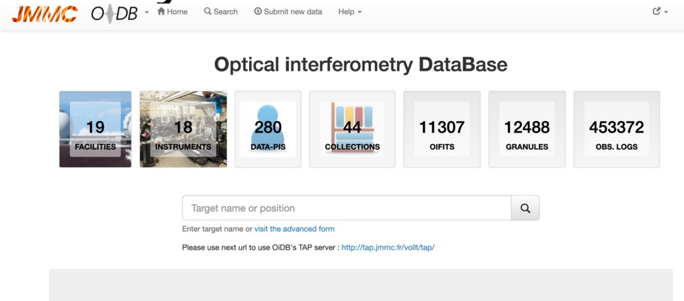
General image metrics

A general discussion about measuring discrepancy between images with a specific focus on
developed in[Gomes2016]. A proper image metric shall provide a quantitative score suitable to
This score must reflect the perception by an expert of the fidelity of the images with a given
reference image. The score shall be insensitive to changes that may be considered as irreleva
context. For example, image quality indices widely used in the signal processing community
affine transform of the pixel values. For optical interferometry, the pixel size and the field of
are, to some extend, free parameters and may thus be different from the pixel size of the gro
Moreover, when only power spectrum and phase closure data (`vis2data` and `t3phi` in `OI_V`
blocks of OI-FITS files) are used to reconstruct an image, the position of the object in the fie
constrained by the data and the image metric should not depend on this position.

Accounting for all these remarks, a possible definition of the distance between $\boldsymbol{y}$, a referenc
reconstructed image, is given by:

$$\mathcal{D}(\boldsymbol{x},\boldsymbol{y}) = \min_{\boldsymbol{\xi}}\Big\{ \sum_{j\in|\mathbf{R}_{\boldsymbol{\theta}}\cdot\boldsymbol{x}|\cap|\boldsymbol{y}|} d(\alpha\,(\mathbf{R}_{\boldsymbol{\theta}}\cdot\boldsymbol{x})_j + \beta, y_j)$$

Le cycle de la donnée


JMMC OiDB
Home
Search
Submit new data
Help

Optical interferometry DataBase

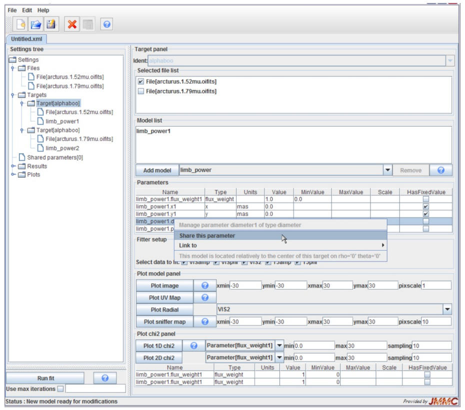
19	18	280	44	11307	12488	453372
FACILITIES	INSTRUMENTS	DATA-PIS	COLLECTIONS	OIFITS	GRANULES	OBS. LOGS

Target name or position

Enter target name or visit the advanced form

Please use next url to use OiDB's TAP server : http://tap.jmmc.fr/vollt/tap/

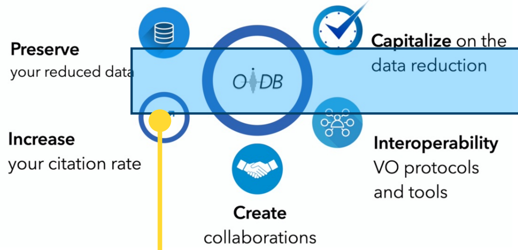
LitPro


File Edit Help
Settings tree
Target panel
Selected file list
Model list
limb_power1
Add model
Parameters
Fitter setup
Plot model panel
Plot image
Plot UV Map
Plot Radial
Plot sniffer map
Plot chi2 panel
Run fit
Status : New model ready for modifications

Data Validation
Exploration

OImaging

Why share your data on OiDB?



Preserve
your reduced data

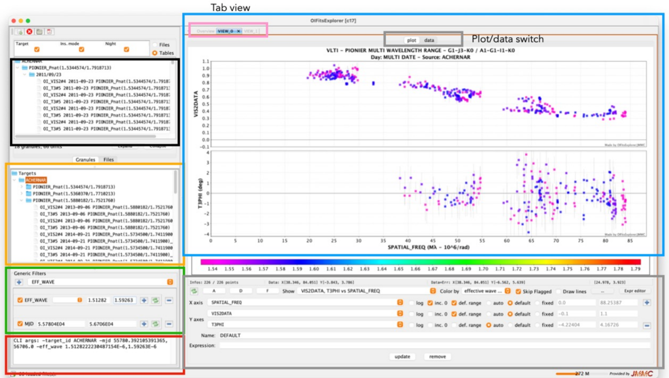
Capitalize on the
data reduction

Increase
your citation rate

Interoperability
VO protocols
and tools

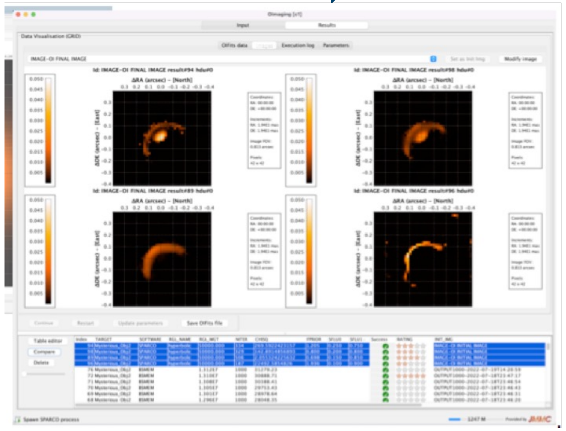
Create
collaborations

Checking
previous
observations


Tab view
Plot/data switch
VLTI - PIONIER MULTI WAVELENGTH RANGE - G1-J3-K0 / A1-G1-I1-K0
Day: MULTI DATE - Source: ACHERNAR
VIS2DATA
T3PHI (deg)
SPATIAL_FREQ (M/λ - 10^6/rad)

Plotting parameters

OifitsExplorer



Model fitting

Rencontre HCDC-JMMC (R. S. N. Meunier)

Objectifs HCDC (ex SPHERE – DC): S:

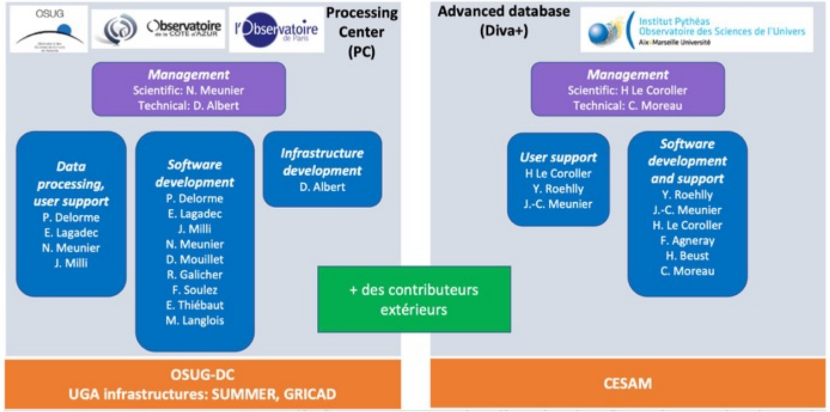
- Maximiser le retour scientifique des l'instruments HC orienté sur la réduction massive des données
- Evolution long-terme : Préparer une infrastructure pour des instruments futurs du même type

Principale tâches

- Traitement de données complexes (SPHERE: IFS,IRDIS,ZIMPOL)
- Réduction à la demande
- Réduction données publiques

Contraintes :

- Gros volumes de données
- Association fichiers (calibrations, images cubes)
- Automatisation
- Traçabilité



Processing Center (PC)

Management
Scientific: N. Meunier
Technical: D. Albert

Data processing, user support
P. Delorme
E. Lagadec
N. Meunier
J. Milli

Software development
P. Delorme
E. Lagadec
J. Milli
N. Meunier
D. Mouillet
R. Galicher
F. Soulez
E. Thiébaut
M. Langlois

Infrastructure development
D. Albert

OSUG-DC
UGA infrastructures: SUMMER, GRICAD

+ des contributeurs extérieurs

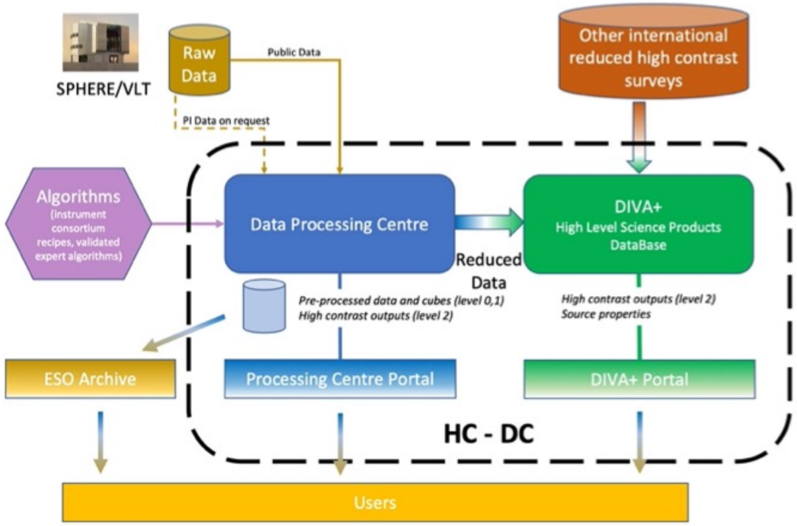
Advanced database (Diva+)

Management
Scientific: H Le Coroller
Technical: C. Moreau

User support
H Le Coroller
Y. Roehlly
J.-C. Meunier

Software development and support
Y. Roehlly
J.-C. Meunier
H. Le Coroller
F. Agneray
H. Beust
C. Moreau

CESAM


SPHERE/VLT
Raw Data
Public Data
PI Data on request
Other international reduced high contrast surveys
Algorithms (instrument consortium recipes, validated expert algorithms)
Data Processing Centre
Reduced Data
DIVA+ High Level Science Products DataBase
Pre-processed data and cubes (level 0,1)
High contrast outputs (level 2)
High contrast outputs (level 2)
Source properties
ESO Archive
Processing Centre Portal
DIVA+ Portal
HC - DC
Users

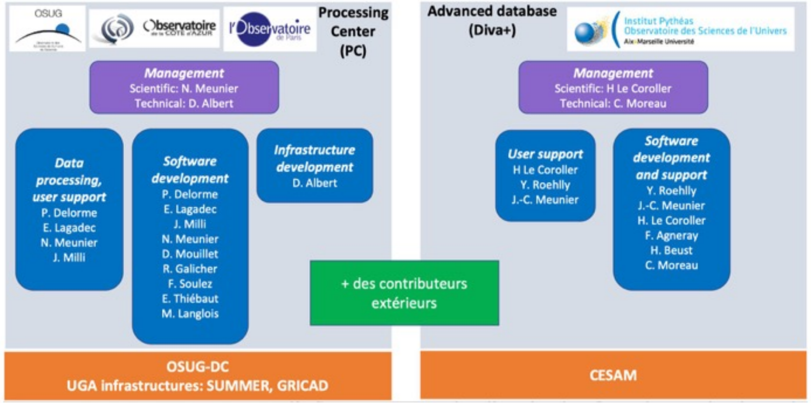
Rencontre HCDC-JMMC (R. S. N. Meunier)

Points/ intérêts communs

- Support utilisateurs reduction
- Temporalité reduction (protection)
- Besoin de traçabilité => intérêt commun pour DOI
- Difficultés identifications sources “complexes”
- Relation ESO

Différences:

- Volumes à traiter (HCDC >> JMMC): calcul sur grille
- Pas (ou peu) de développement pipeline au sein JMMC
- Pas de culture d’école
- Base de données de recherche ”climatique”
- Base de données PSF


OSUG
Observatoire de la CÔTE d'AZUR
l'Observatoire de Paris
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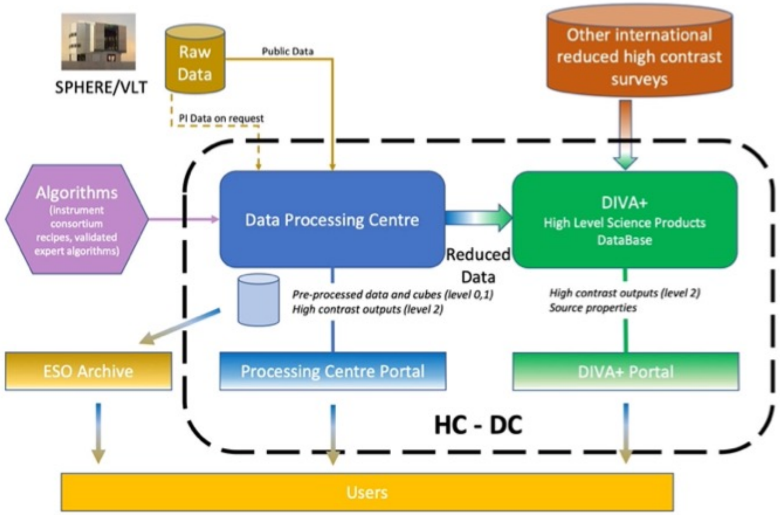
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Lien JMMC-ESO

JMMC

1) Réduction automatique à l'ESO. Quel rôle pour le JMMC: quelle interface avec OiDB ? (alimentation, métadonnées, versions, astrométrie, MATISSE)
2) Quel est l'impact de passage en demandes annualisées ? Comment Aspro2 peut-il suivre les changements instrumentaux ?
3) Quelle est le futur pour a2p2 ? Devrions nous investir plus ? Lien avec les paquets instruments de l'ESO
4) BadCal: constat très peu utilisé par le personnel ESO. Comment améliorer son accessibilité.
5) Intégration de services JMMC dans le processus P2 (prédiction d'observations).
6) Accord cadre englobant JMMC-ESO ?

Lien JMMC-ESO

JMMC

Workshop: Frontiers in astronomical interferometry analysis

More than three decades of optical interferometry development has led to operational facilities equipped with advanced instrumentation, such as at the VLTI or at the CHARA Array. Considerable improvements in sensitivity, uv coverage, spectral resolution have allowed new astrophysical parameter spaces to be explored successfully.
Yet, the ultimate performances of instruments has not been reached and a significant margin for progress remains if one can tackle the many challenges of data processing and analysis.

We propose to organise a workshop dedicated to all the aspects of optical interferometry data handling. We will cover the estimation of biases, uncertainties and correlations from pipeline, calibration and self calibration, model fitting, image reconstruction and astrometry. On the modelling side we will explore the need for a shared framework of analytic functions suited for actual astrophysical application and strategies for astrophysical grid explorations. Moreover, advances in that field need to be integrated in public tools in order to benefit a wider non-expert community.

The aim of the workshop is to share, explore and propose solutions to the different challenges. These could eventually lead to methodologies and tools that can be shared with the community through open services such as JMMC, ESO or other expertise centres. As such the intended audience is one of experts actually involved in data processing and analysis and astrophysics specialist confronted with specific precision requirements.

Fall 2025

Bilan executé

Modèles chromatiques dans Aspro 2	Version Beta
JSDC + Gaia + Moyen Infrarouge	Implémenté
Intégration beam dans OImaging	Implémenté
Amélioration navigateur données OIFitsExplorer	En attente
Métriques de comparaison de qualité d'images reconstruires	Implémenté (en attente contributions logicielles sur github)
Améliorer accessibilité cataloguqes BadCal/JMDC	En attente
Mise en production SPICA-DB	Implémenté de manière imminente
AMHRA: grille modèles étoiles massives (CMFGEN)	En cours
AMHRA Mise en production calcule grille sYSOm	Implémenté
Extension exploration paramètres autres modèles AMHRA	En attente
AMHRA Examen solutions techniques généralisation de formulaires d'interrogation de modèles	En attente
Activer l'alimentation d'OIDB par les auteurs	En cours
OiDB Acompagnement execution programme scientifique	En spécification
OiDB Optimiser collaboration, gestion collection privée	En spécification
OiDB: Pérennisation lien accès	En spécification

Conclusions – éléments de réflexion

- Effort sur OiDB et réduction automatique: soutenir l’exploitation des données d’archives et les collaborations.
- Repenser le développement logiciel dans le contexte d’un SNO élargi.
- Défi de “coller aux besoins des utilisateurs”, même ces besoins ne sont pas exprimés. Rôle du CS et de l’AG
- La recherche en ajustement de modèles reconstruction d’images est très active (apprentissage profond, modélisation instrumentale) comment se positionner, l’intégrer à l’offre de service tout en évitant la dispersion ?

Eléments de prospective

- Aspro2 :
  - Finaliser l'intégration de GPAO (LGS)
  - Modèles de bruits instruments
  - Notion de session multi-instruments, multi-objects
- OImaging/reconstruction d'images :
  - Implémenter de qualité de reconstruction / accompagnement reconstruction d'image
- JSDC :
  - Livraison JSDC-3
  - Groupe de travail dédié JSDC-4 (SPICA)
- Ajustement de modèles (discussion demain):
  - Sortie de l'Atelier "Frontiers in … data analysis"
  - Définir des métriques d'ajustements, calculs d'erreurs (groupe dédié)
  - Jeux de données de référence pour validation outils (groupe dédié)
  - Autre service JMMC en support développeurs ?
- a2p2
  - Finaliser a2p2/aspro2 for CHARA ?
  - Meilleure adaptation aux besoins ESO ? (P2)
- OifitsExplorer
  - Refondre explorateur granules (nécessite spécification)
  - Intégration notion session (spécification)
- AMHRA :
  - Grille de modèles massives OB
  - Génération automatique de grilles de modèles
  - Nouveaux modèle transfert radiatif (discussion en CS)?
- OiDB :
  - Mettre en production SPICA-DB/CHARA
  - Création de paniers de téléchargement/visualisation
  - Autorisation PI modifier métadonnées
  - Augmenter visibilité DB (DOI, liens OiDB/ADS Journaux)
  - Données associées (images reconstruites …)
  - Chantiers: versionnage de granules, autres formats (NIFITS, II)

Merci !