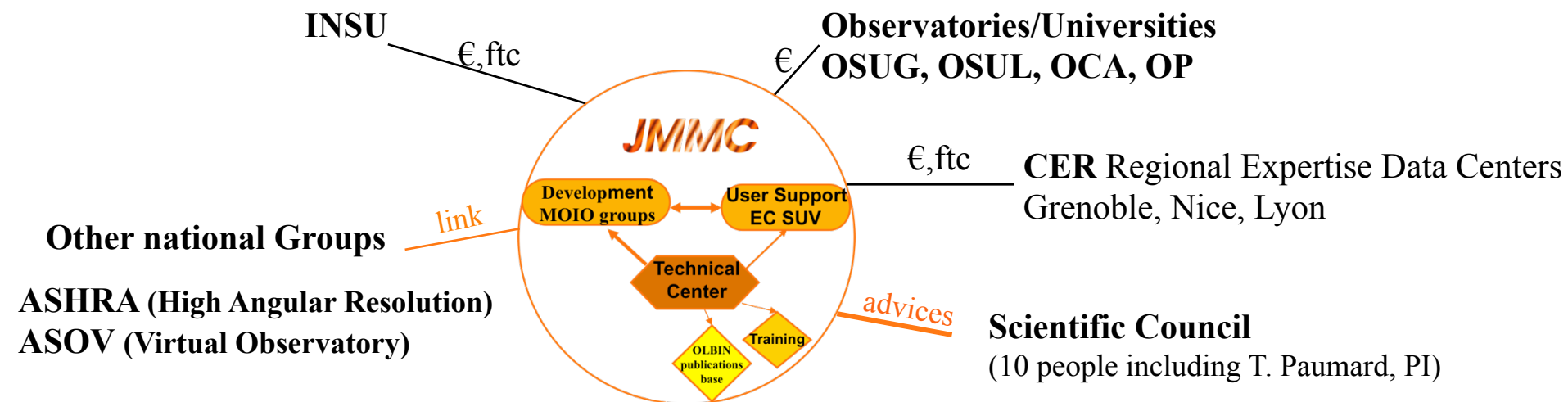


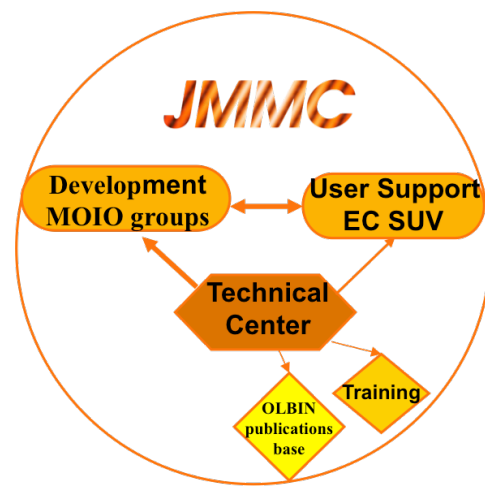
Presentation of the JMMC

**Jean-Philippe Berger, Laurent Bourgès, Gilles Duvert, Guillaume Mella
& Isabelle Tallon-Bosc**

with Thibaut Paumard (scientific council)

- appointed in 2000 by INSU (*Institut National des Sciences de l'Univers*)
- evolving until a structure named "*Pôle thématique national des données en interférométrie optique*" created in 2012
- supported financially by INSU & 4 observatories (Grenoble, Côte d'Azur, Lyon, Paris) and potentially by Data Centers
 - Direction Committee
- advised by a Scientific Committee for its activities and roadmap
- led by a regulated "life"
 - annual activities and prospective reports; frequent internal meetings
 - annual meetings (DC, SC, General meeting with all members)





with people
from different institutes
through different groups

- **A Technical Center:** Guillaume Mella and Laurent Bourgès
the engineer *dream team*, partial time + possibly temporary contracts ~1.5 FTE
- Working groups inside "MOIO" (*Méthodes et Outils pour l'Interférométrie Optique*)
 - partial time of researchers
 - PI : Jean-Philippe Berger
 - H. Beust, A. Chelli, A. Domiciano de Souza, G. Duvert, E. Thiébaud, F. , JB Le Bouquin, M. Tallon, I. Tallon-Bosc, X. Haubois
 - developments, mainly on Tools for Data processing < 1.4 FTE
- **Expertise Center for Face to Face User Support "SUV"** (*Service aux Utilisateurs du VLTI*)
 - partial time of researchers
 - PI : Alexis Matter < 0.85 FTE
 - J.C. Augereau, M. Benisty, F. Millour, M. Montargès, K. Perraut,
M. Tallon, I. Tallon-Bosc, E. Thiébaud, F. Vincent

and objectives: ensure the lifetime cycle of interferometric optical data



SearchCal

SearchCal interface showing search parameters like Instrumental Configuration, Science Object, Magnitude Band, Wavelength, Max. Baseline, RA, DEC, Max. Magnitude, and DEC Range.

Reduce data

amdlib
pndrs

Prepare Observations

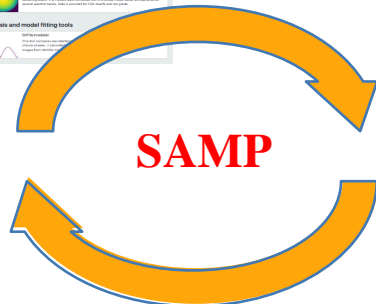
Aspro2 interface showing observation configuration for VLTI, including targets, instrument, and observation mode settings.

View Data

OIFits Explorer interface displaying spectral data plots for VLTI - GRAVITY observations, showing flux vs. spatial frequency.

Aspro2

Aspro2 interface showing a map of the observation field with instrument positions and coverage information.



Virtual Observatory developments

Fit Models

LITpro interface showing model fitting parameters and filter setup for data analysis.

CDS Catalogs

Visual interface for CDS catalogs, showing search criteria and results for astronomical data.

L0 to L3 DataBases

JMMC Observing Database (OxDB) interface showing search filters and results for observation data.

ObsPortal

OiDB interface showing observation search results, including a table of observation details.

target_name	access_url	L_mis	instrument_name	visit_min
Alpha_Cen_B	FCN/2016-05-28T01:56:00_739_unaided/Calibrated/No	2016-05-28T01:50:12	PIONIER	1.51309030
Alpha_Cen_A	FCN/2016-05-28T02:15:37_104_unaided/Calibrated/No	2016-05-28T02:15:21	PIONIER	1.51309030

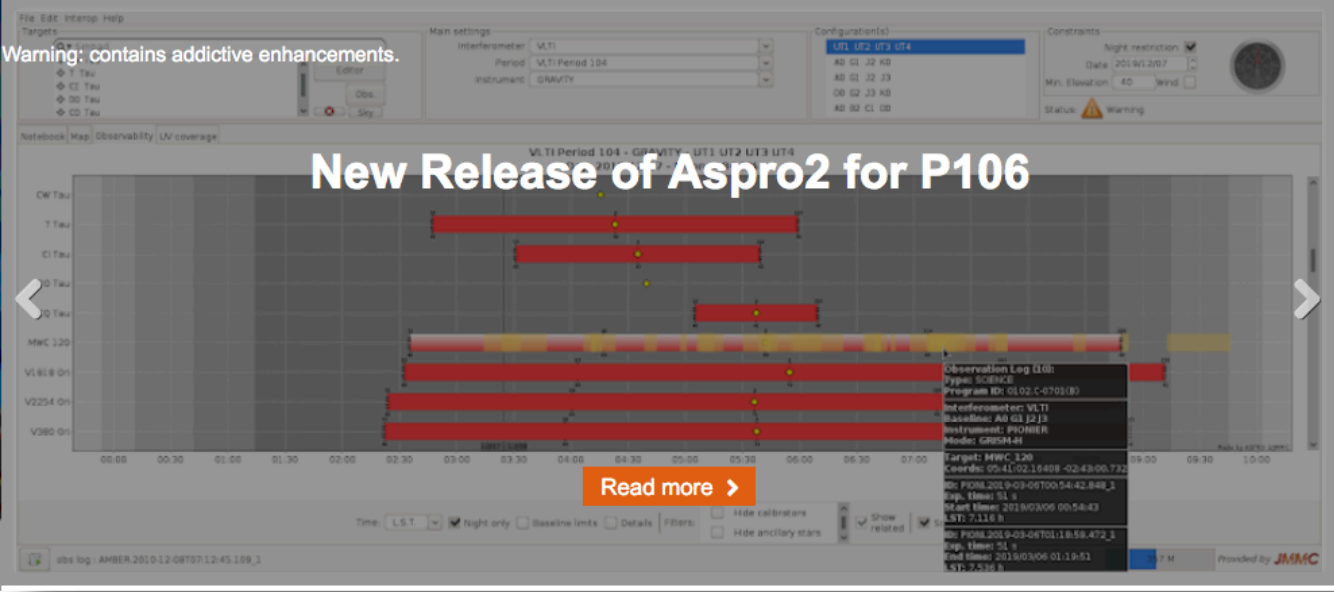
Reconstruct Images

OImaging interface showing image reconstruction parameters and a resulting reconstructed image of a star.

JMMC

We interfere constructively

- THE JMMC
- TOOLS
- USER SUPPORT
- PUBLICATIONS
- JOBS
- TRAINING
- NEWS



The project

The JMMC is the French Center for Infrared and Optical Interferometry. It provides support for **the users** of the astronomical interferometers currently in operation around the world.

Who are we? >

ASPRO

SEARCHCAL

LITPRO

OIFITSEXPLORER

OIMAGING

OIDB

OBSPORTAL

AMHRA

SUV HELP

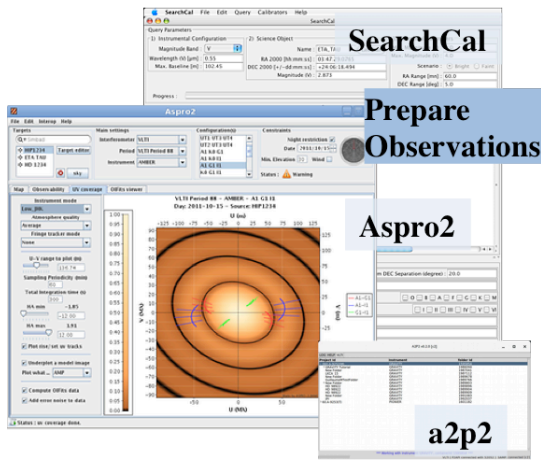
- SUV: <https://www.jmmc.fr/english/the-jmmc/suv/>
- User support: <https://apps.jmmc.fr/feedback/>

Tools:

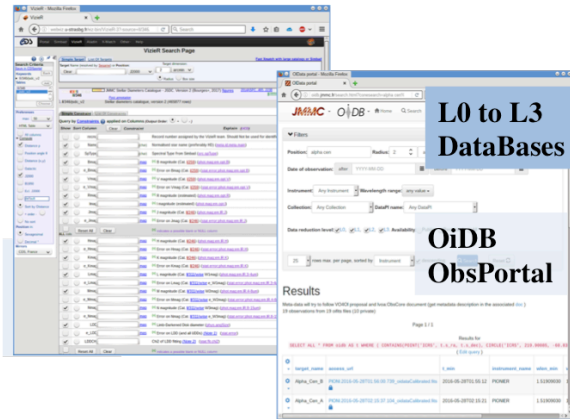
- ASPRO2: <https://www.jmmc.fr/aspro>
- AMHRA: <https://amhra.jmmc.fr/>
- SearchCal: <https://www.jmmc.fr/searchcal>
- OIFits Explorer: <https://www.jmmc.fr/oifitsexplorer>
- LITpro: <https://www.jmmc.fr/litpro>
- OImaging: <https://www.jmmc.fr/oimaging>
- OIdb: <https://www.jmmc.fr/oidb>

Github repository: <https://github.com/JMMC-OpenDev/>

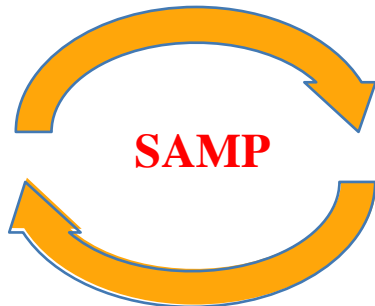
- a2p2: <https://github.com/JMMC-OpenDev/a2p2>
- OiTools: <https://github.com/JMMC-OpenDev/oitools>
- ...



Tools and services for observations' preparation (Gilles, Laurent)



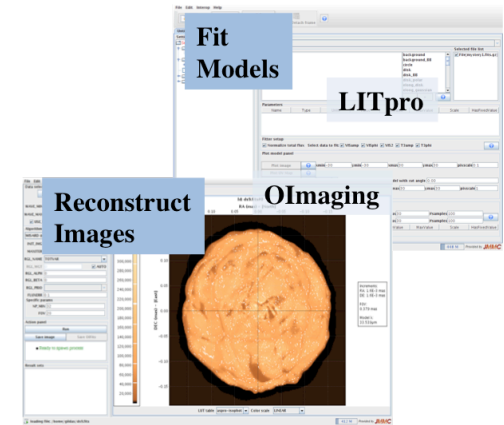
Databases and catalogues (Laurent, Guillaume)



Infrastructure and developments (Laurent, Guillaume)

Major internal activities, present and planned, with present forces + additional one if funding

- OImaging & Model Fitting
 - improvement of the GUI
 - making OImaging ready for polychromatic imaging
 - Improvements of the tools for manipulating OIFits files (e.g. merge, filter by mjd, wavelength, baselines, ...)
 - new LITpro2 software with Users functions,...
- Go to Survey's observations support
 - initiate by the project SPICA/CHARA
- Collaboration with CHARA
 - at short term, optimisation of the positioning of the 7th telescope
 - at longer term, help for exploring the uv plane of the expanded array of 12 x 2m telescopes



- already successful collaboration between JMMC and ESO
(2 MOU, on Aspro & SearchCal)
- existing interaction:
 - meeting twice a year before the Calls of proposal between the TC and ESO VLT staff
 - + now via EC meetings & ESO
- strong wishes for an increase of the interactions level
 - to allow updates more efficiently
 - to allow sharing difficulties or points to improve (for a better lifetime cycle of the data)
 - to allow emergence of subjects of collaboration ?

with the true hypothesis: the limited resources of JMMC