

The 10th VLTI School of Interferometry

Practice session I

Interferometry basics with ASPRO

Introduction

JMMC

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(OSUG)



JMMC organization

The Jean-Marie Mariotti Center is the French Center for Infrared & Optical Interferometry:

- **MOIO service: Software & Service provider**
R&D network (4 sites ~ 20 scientists):
Existing tools, M.F.I.R, Databases, AMHRA
- **SUV service: French VLTI Center**
 - Support center: face-to-face help to reduce data, perform data analysis
 - Training network

New directors in 2021:

JMMC is headed by **Isabelle Tallon-Bosc** and **MOIO** by **Jean-Philippe Berger**. **SUV** continues to be headed by **Alexis Matter**.

Laurent Bourgès & Guillaume Mella work for the JMMC tech group @ Grenoble

The screenshot shows the JMMC website with the following elements:

- Header:** Intranet | Mailing Lists | Travailler au JMMC | Search | Log out | Sites du Centre Jean-Marie Mariotti
- Logo:** JMMC with the tagline "We interfere constructively"
- Navigation:** THE JMMC | TOOLS | USER SUPPORT | PUBLICATIONS | JOBS | TRAINING | NEWS
- Image:** A photograph of the JMMC observatory buildings at dusk.
- Left Sidebar:**
 - THE JMMC
 - Who are we?
 - Structure (highlighted)
 - MOIO
 - SUV
 - Who was JMM?
- Main Content:**
 - Home > The JMMC > Structure
 - Structure
 - Organizational chart
- URL:** <http://www.jmmc.fr>
- Organizational Chart:**
 - JMMC pole**
 - Scientific Council Pdt: T. Paumard
 - Director: ~~Gilles Duvert~~
 - Directors Council Pdt: DSAA INSU
 - Technical Center**
 - Software
 - Coordination & Infrastructure: G. Mella (OSUG)
 - Technical Director: L. Bourgès (OSUG)
 - Web services
 - SNO5 MOIO*** (Director: ~~G. Duvert~~ (IPAG/OSUG))
 - Existing tools maintenance and support: G. Duvert, M. Benisty (IPAG/OSUG)
 - Model fitting and Image Reconstruction: F. Soulez (CRAL/OSUL)
 - AMHRA**: A. Domiciano de Souza (LAGRANGE/OCA)
 - Oil Data Bases: OIDB, JSDC, JMDC, BadCal..., X. Haubois (ESO)
 - SNO3 SUV**** (Director: A. Matter (LAGRANGE/OCA))
 - SUV local representatives: OCA (A. Matter), Obs.Paris (V. Coudé du Foresto), OSUG (J.-C. Augereau), OSUL (E. Thiébaud)
 - Training: A. Meillard (OCA)
 - R & D Groups**
 - External Sites:** Grenoble OSUG, Lyon OSUL, Nice OCA, Obs. Paris

- Footnote:** (*) Méthodes et Outils pour l'Interférométrie Optique (**) Support Utilisateur VLTI (***) Analyse et Modélisation en Haute Résolution Angulaire [v.2019-06-15]

JMMC Service overview



SUV (VLTI Center):

- + User Support
- + Training

CDS Catalogs

JSDC2
JMDC

SearchCal

Aspro2

a2p2

Prepare Observations

AMHRA

AMHRA

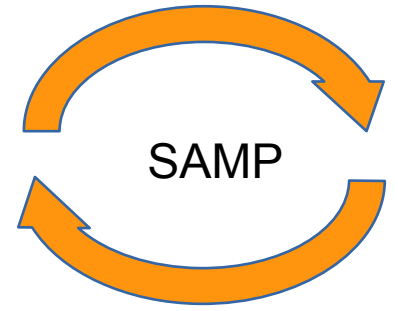
AMHRA

Reduce data

amdlib
pndrs

View Data

OIFits Explorer



Fit Models

LITPro

OiDB

L0 to L3 DataBases

Results

target_name	access_url	t_min	instrument_name	uwn_min
Alpha_Cen_B	PION12016-05-28T02:56:00_739_odesCalibrated.B	2016-05-28T02:56:12	PIONER	1.5190030
Alpha_Cen_A	PION12016-05-28T02:15:21_104_odesCalibrated.B	2016-05-28T02:15:21	PIONER	1.5190030

Reconstruct Images

OImaging

JMMC Important links

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

Tools:

- ASPRO2: <https://www.jmmc.fr/aspro>
- a2p2: <https://github.com/JMMC-OpenDev/a2p2>
- 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>
- Oldb: <https://www.jmmc.fr/oidb>

ASPRO2

- Releases: <https://www.jmmc.fr/aspro>
- Documentation:
<https://www.jmmc.fr/twiki/bin/view/Jmmc/Software/JmmcAspro2>
- Quick tour (DEMO)
- This practice session will focus on the DEMO interferometer to practice different model functions using fake instruments:
 - DEMO_SPATIAL: 17 North-South-aligned telescopes (1 spectral channel)
 - DEMO_SPECTRAL: few baselines but WIDE bandwidth (0.1 to 10 μ m)

Let's start the practice session (2h30)

Overview

- Open the x2go session on 1 student machine to the VM corresponding to your room / group. See <https://app.nuclino.com/VLTIschool/School-workspace/X2GO-client-for-practice-sessions-e79c02bd-fe8c-482d-87d5-1071b3f87ef9>
- Share your x2go screen on gather.town with your mates & teachers
- Teachers will follow several groups, use the question spot if needed
- Every 30 minutes we will make a short wrap up break

Let's go !