

Uliège VLTI expertise center

Denis Defrère

Overview

University of Liège

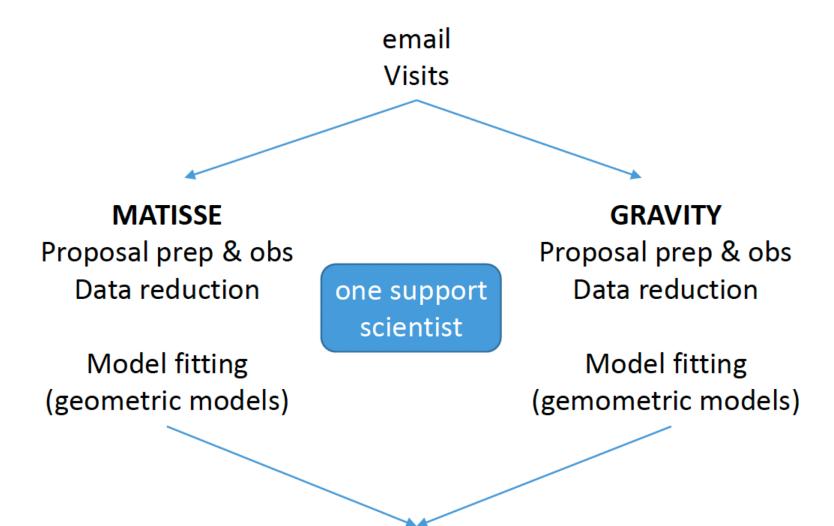
Coordinator: Denis Defrère

Lead Scientists: Olivier Absil & Jean Surdej



- One of interferometry OPTICON-JRA (WP8) lead partners
- Main area of interferometry-related expertise:
 - ✓ High-contrast applications (CHARA, VLTI, LBTI, KI)
 - ✓ End-to-end instrument simulation (GENIE, 2GFT, Darwin/TPF)
 - ✓ Advanced data reduction techniques (e.g., self-calibration)
 - ✓ Nulling testbench (CELINE)
 - ✓ Exozodiacal disk detection and characterization
 - ✓ Massive stars
 - ✓ Binary detection

Center capabilities



ESO pipelines on remote server 2015 Mac pro with 64 Go RAM and 12 Tb of disk space

Recent activities

- Phase1 proposal preparation, OB preparation, and data interpretation for GRAVITY program on WR48 (Theta Muscae, 099.D-0440(A), 0101.D-0732(A), PI: E. Gosset @ Uliège).
- Visitor: Narges JAMIALAHMADI (IPM Institute, Fizeau exchange visitor program): geometric modelling of 51 Oph (PIONIER)
- Support from Antoine critical for more advanced requests (spectrum extraction of each component)
- Dissemination;
 - Networking activities (KUL, BELSPO)
 - Websites (STAR institute @ ULiege, personal website)

Future activities

- Received ERC funds to build Hi-5 (possible VLTI visitor instrument). Postdoc in support of the VLTI center (~May 2020).
- Organization of Expertise Centre Meeting and VLTI Open Day in Liège (May 2021, new OPTICON proposal)
 - **EC** meeting: Annual one-day meetings to discuss the Centres' performance and roadmap
 - Open day: A concerted VLTI Expertise Centre dissemination activity
- Support for 2-3 visiting scientists per year (Face-To-Face meetings)
- <u>Contact</u>: D. Defrère (ddefrere@uliege.be)