The IRAM node of the European ALMA Regional Center

Frédéric Gueth, IRAM Grenoble
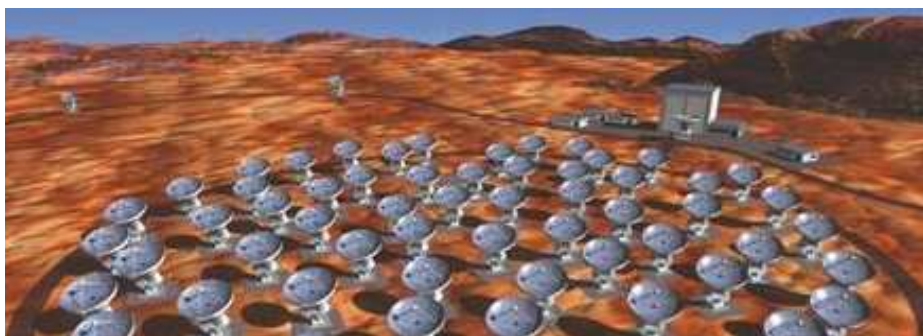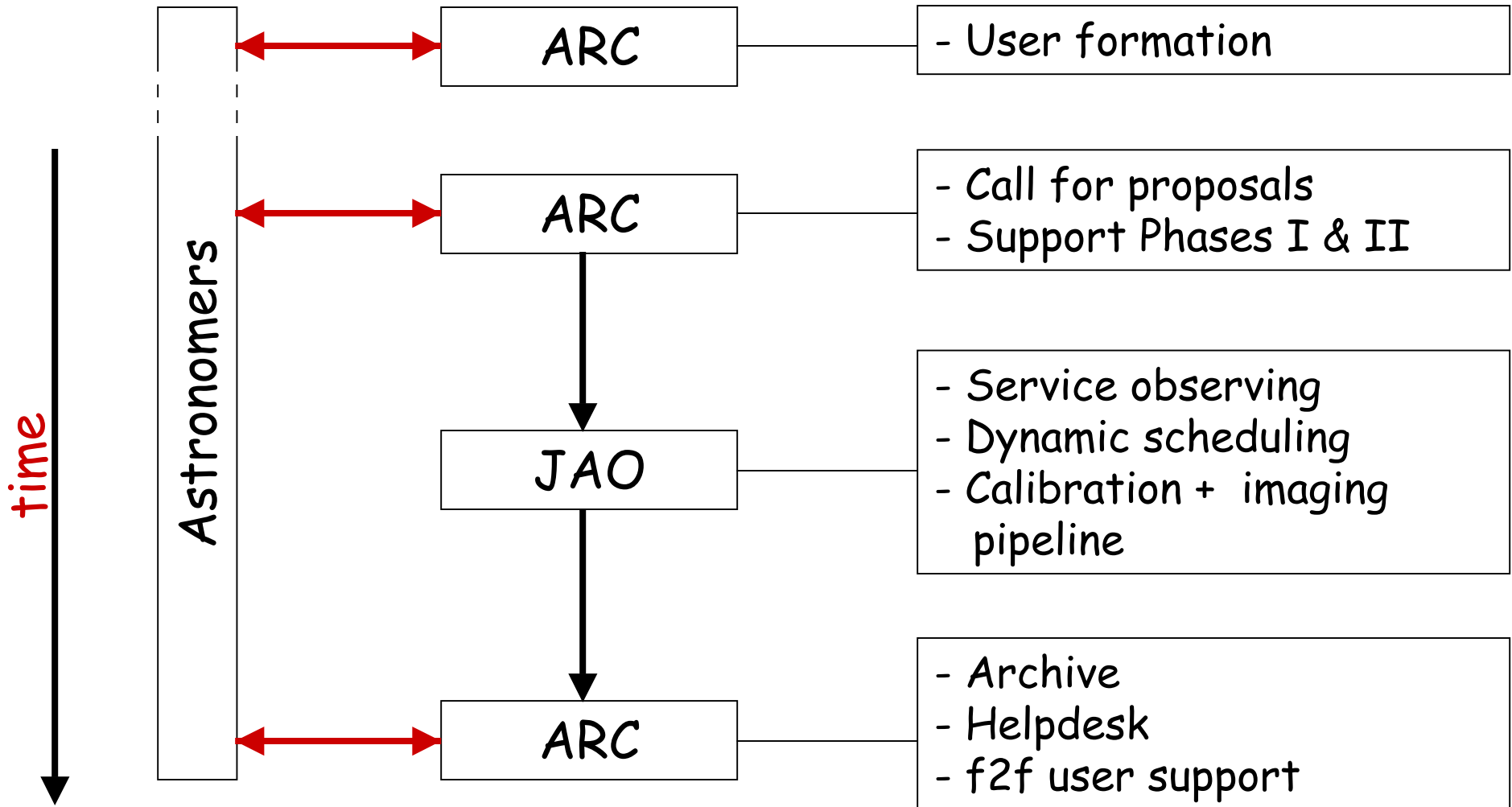
ALMA Regional Center

	ARC	- User formation
	ARC	- Call for proposals - Support Phases I & II
	JAO	- Service observing - Dynamic scheduling - Calibration + imaging pipeline
	ARC	- Archive - Helpdesk - f2f user support

Astronomers

time

ALMA Regional Center

Astronomers

time

ARC	—	- User formation
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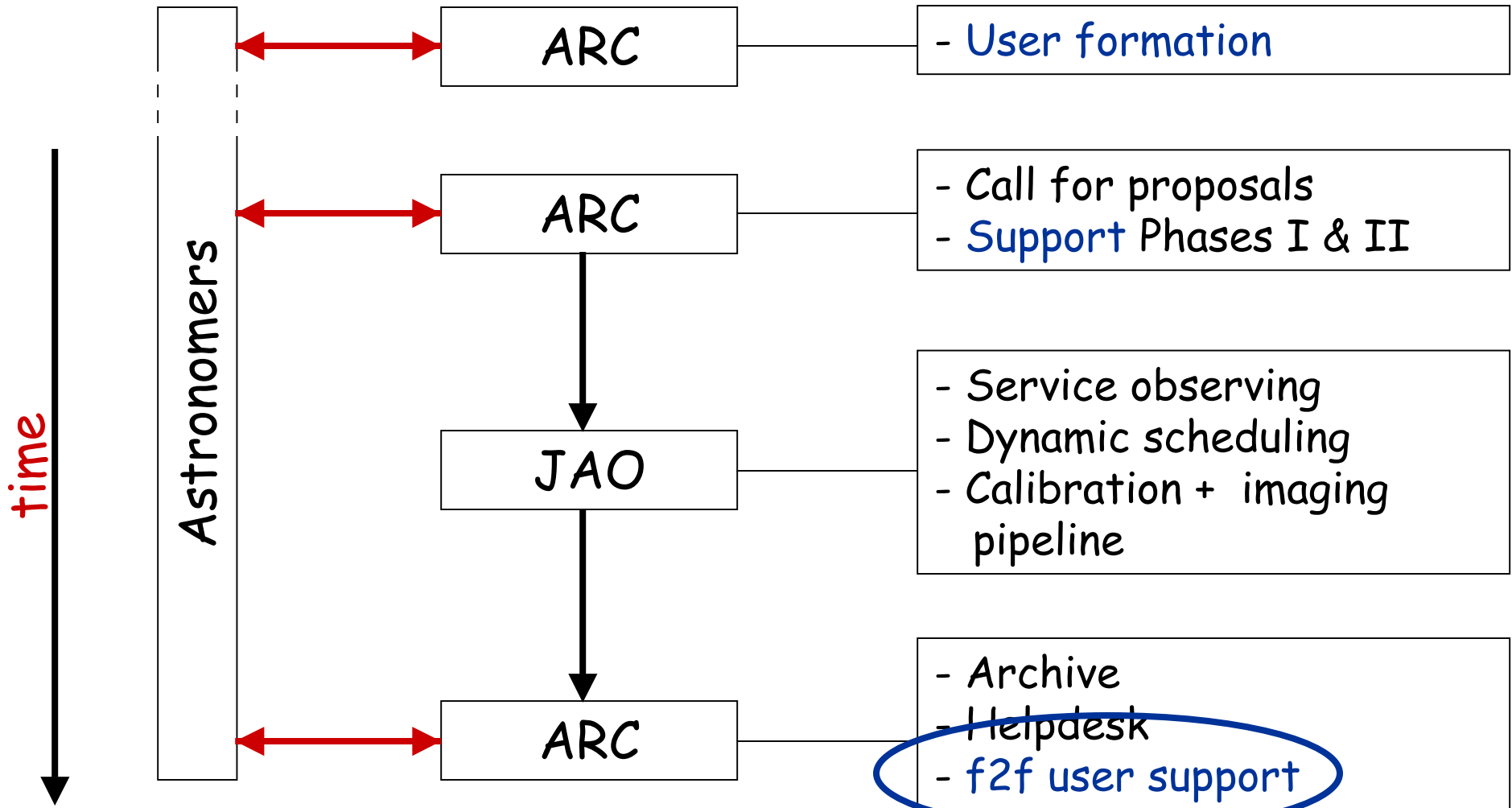
IRAM ARC node based on existing expertise with the Plateau de Bure interferometer

Why an ARC node at IRAM?

- Strong IRAM involvement in ALMA construction
- **Already existing center of expertise** in mm interferometry
  - Expertise on pipeline, calibration, imaging, atmospheric phase correction, data analysis...
  - f2f support for PdBI since 15 years
  - Close link with technical groups
  - GILDAS software (incl. CLASS)
- **Plateau de Bure f2f support → only delta effort**
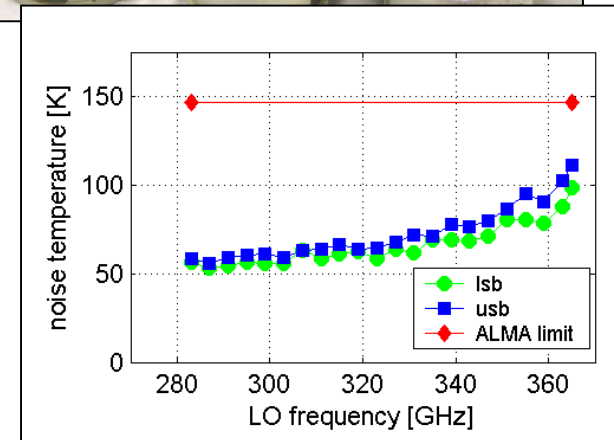- IRAM users are all potential ALMA users → continuity of service provided to the community
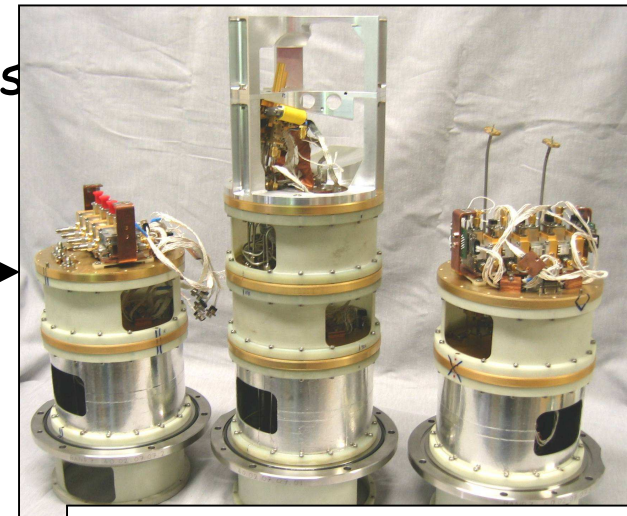
ARC node @ IRAM

Why an ARC node at IRAM?

– Strong IRAM involvement in ALMA cons

- Design phase, 1st project scientist
- **Band 7 cartridges**
- Optics, calibration
- Digitizer clocks
- Telescope Calibration software
- SSR, ASAC, …

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ALMA Regional Centre || IRAM

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ARC node @ IRAM

User formation

- Plateau de Bure
- Visitors
- Schools/Workshops

Developments

- New algorithms & soft.
- ALMA software

User support

- Helpdesk
- f2f support

ARC node @ IRAM

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- f2f support → **Key goal**

ARC node @ IRAM

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User support

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- f2f support

Forming IRAM staff

- ALMA software tests
- IRAM staff @ Chile

Developments

- **TelCal** - Telescope Calibration pipeline
  - D.Broguiere, J.C. Roche, R.Lucas, J.Pardo

- **OTF** - On-The-Fly interferometry
  - J.Pety, N.Rodriguez, J.C. Roche, M.Lonjaret, F.Gueth

- **Imaging simulator in GILDAS**
  - See J.Pety's presentation

- **ALMA commissioning**
  - PdBI software (CLIC) used for holographies
  - Direct participation to CSV (3 months delegation)
    - M.Krips, V.Pietu

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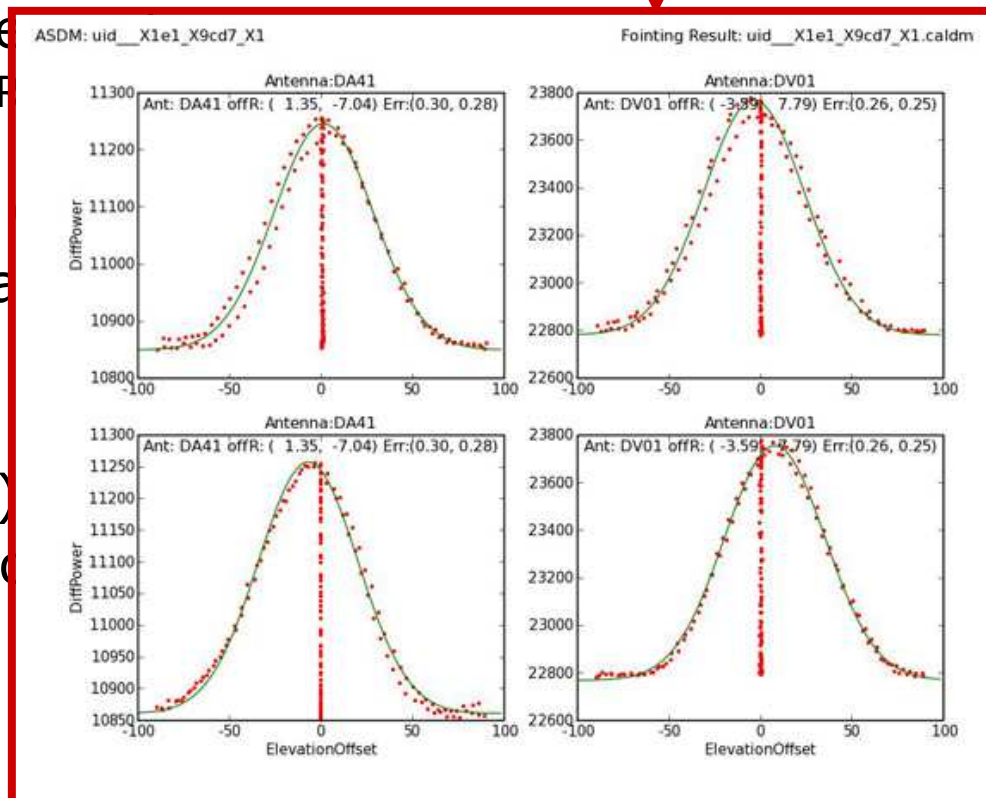 - – J.Pety, N.Rodriguez, J.C. P

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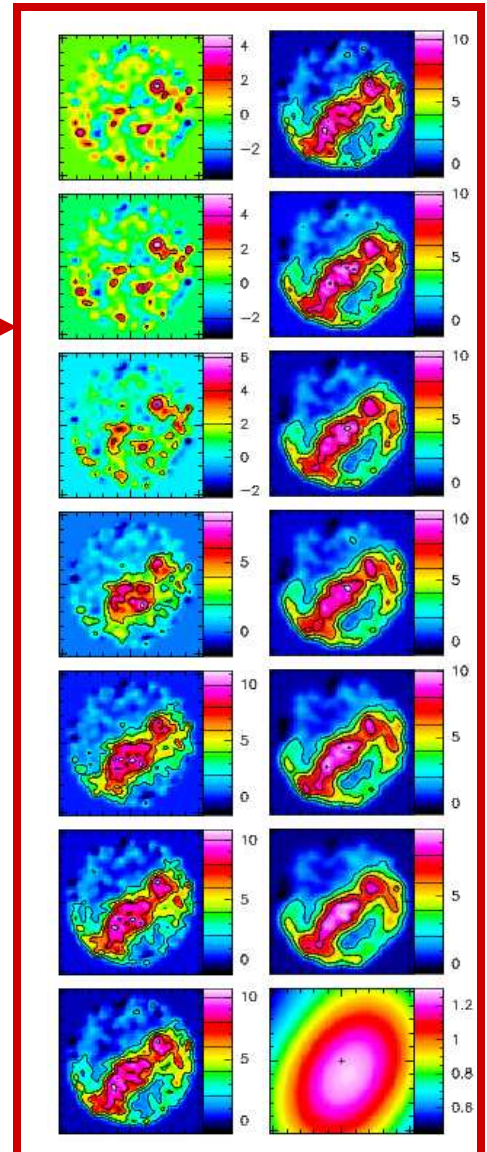 - – PdBI software (CLIC)
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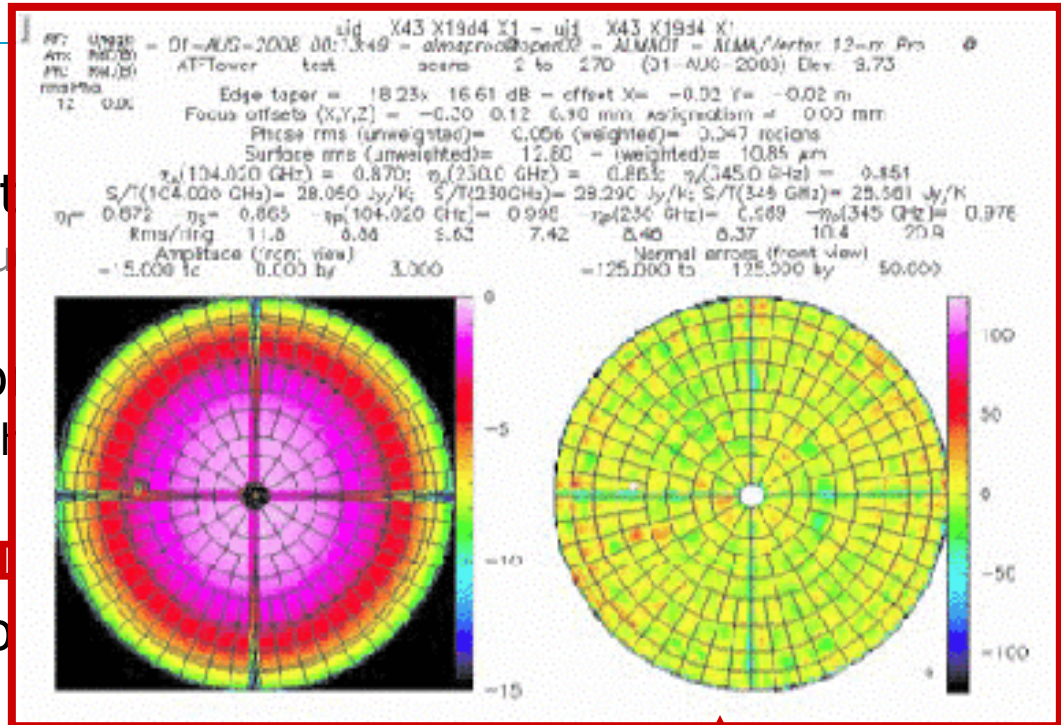   - M.Krips, V.Pietu

4- 8 October, 2010
Grenoble, France

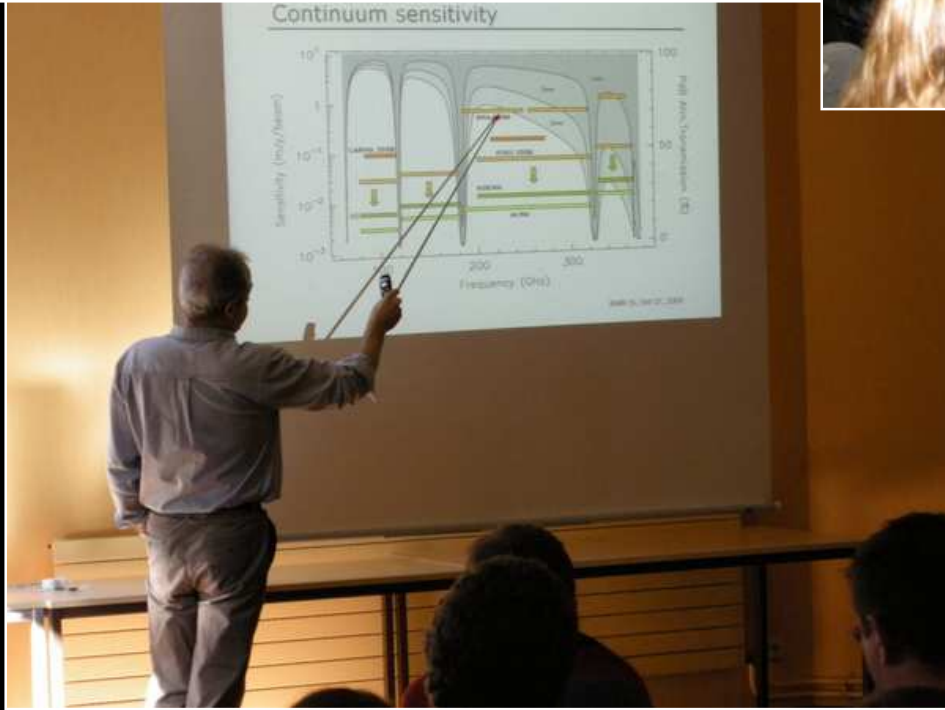**7th IRAM millimeter interferometry school**

Main topics:
Fundamentals of millimeter interferometry; Atmospheric phase correction; Data calibration and imaging techniques; The IRAM Plateau de Bure interferometer (PdBI); The Atacama Large Millimeter Array (ALMA)

Register at www.iram-institute.org and click on interferometry school

Continuum sensitivity

November 29 to December 1, 2010 Grenoble, France

Observing with ALMA: Early Science

A workshop to prepare for the first ALMA Call for Proposals

Local organizing committee: F. Gueth (chair), C. Berjaud, K. Zacher

More information at www.iram-institute.org "Observing with ALMA"
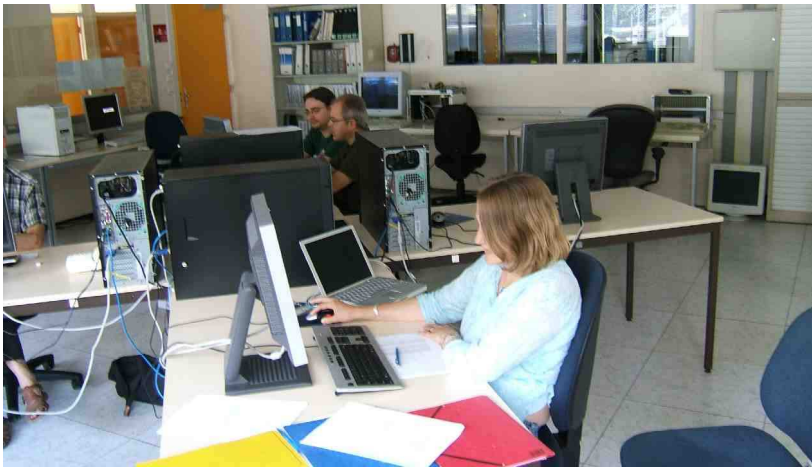Mail contact: alma2010@iram.fr

iram
Institut de
Radioastronomie
Millimétrique

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ALMA Regional Centre || IRAM

f2f support

- **Extend PdBI f2f support to ALMA**
  - Use existing infrastructures and procedures
  - Local contact assigned to each project
  - Funding for travel to IRAM (as PdBI: 1 person/1 visit)
  - Must be in place for Early Science = **end 2011**

Observing time

- **No guaranteed time on ALMA**

- **One single TAC for NA+EU+EA**

- **A world-wide collaboration**

  - EU 33.75%, NA 33.75%, EA 22.5%, Chile 10%

  - In ESO: D~21%, F~16%, E~9%

  - In ALMA: D~7%, F~5.5%, E~3%

- Whatever the actual numbers: expect **huge competition**

- Timescale: ALMA Early Science: Q1 2011

    Full operations: 2013

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- IRAM ARC node based on **synergies with PdBI support**
  - Soft. developments
  - User formation
  - **Face-to-face support**

- ARC node gradually moving from project to operational structure
  - **2011 = pivotal year** = start of Early Science operations

- **Access to IRAM instruments + ARC node ➔ IRAM community in best possible position** to get time on ALMA