



**Astronomical instrumentation Workshop organized by  
ASTRID and RIA**

**Scientific and technological challenges in the development of  
astronomical instrumentation: ALMA and E-ELT**

Facultad de CC. Matemáticas - Universidad Complutense de Madrid  
September 23-25, 2009

**PROGRAMME**

**WEDNESDAY, September 23, 2009  
FIRST DAY, Session 1: E-ELT**

- 8:30 Registration open.
- 9:00 Workshop welcome (David Barrado, Jesús Gallego, on behalf of the SOC and the LOC)
- 9:15 **Ernesto Oliva:** *SIMPLE High Spectral Resolution NIR Spectrograph*
- 9:45 **Luca Pasquini:** *CODEX High Resolution, High Stability Visual Spectrograph*
- 10:15 **Jean- Gabriel Cuby:** *EAGLE Wide Field, Multi IFU NIR Spectrograph with MOAO*
- 10:45 Coffee break
- 11:15 **Markus Kasper:** *EPICS Planet Imager and Spectrograph with Adaptive Optics*
- 11:45 **Niranjan Thatte:** *HARMONI Single Field, Wide Band Spectrograph*
- 12:15 **Bernhard Brandl:** *METIS - the Mid-infrared E-ELT Imager and Spectrograph*
- 12:45 **Eduardo Martín Guerrero:** *NAHUAL connections to ALMA & ELTs*
- 13:15 Lunch
- 14:45 **Francois Hammer:** *OPTIMOS-EVE Multi-fiber spectrograph*
- 15:15 **Olivier Le Fèvre:** *OPTIMOS-SLITS Wide Field Visual MOS:Participation INTA/LINES in space missions*
- 15:45 **Richard Davies:** *MICADO Diffraction-limited NIR Camera*
- 16:15 Coffee break
- 16:45 **Round table about the Spanish involvement in E-ELT instrumentation:** X. Barcons (chair), S. Arribas, R. Rebolo, J. Gallego, R. García-López
- 18:00 End of session

THURSDAY, September 24, 2009  
SECOND DAY, Session 2: ALMA and future opportunities in the radio

- 9:00 **Robert Laing:** *Long term planning for ALMA instrumentation*  
9:30 **Frédéric Gueth:** *Supporting the ALMA users: the IRAM ARC node*  
10:00 **Rafael Bachiller:** *Radioastronomy Projects at OAN*

10:30 Coffee break

- 11:00 **David Hughes:** *Instrumentation of the Large Millimeter Telescope*  
11:30 **Lourdes Verdes-Montenegro:** *Radio-VO activities of AMIGA group in the context of ALMA*  
11:45 **Jesús Martín-Pintado:** *Advanced tools for data cube analysis*

SECOND DAY, Session 3: GTC, VLT, and other ground facilities

- 12:00 **Pedro Álvarez:** *Long term planning for the GTC instrumentation*  
12:30 **Armando Gil de Paz:** *MEGARA: A proposed wide-field optical IFU for GTC*  
13:00 **Luca Pasquini:** *Long term planning for VLT instrumentation*

13:30 Lunch

- 15:00 **Marisa García-Vargas:** *FRACTAL, a technological company for astronomical Instrumentation and Software*  
15:20 **Rafael Vázquez Osorio:** *Science Data Processing, GMV's involvement*  
15:40 **Marc Balcells:** *The role of 4m telescopes in the era of EELT: future instrumentation for the WHT*  
16:00 **Pedro Amado:** *CARMENES: Calar Alto high-Resolution search for M dwarfs with Exo-earths with a Near-infrared Echelle Spectrograph*  
16:20 **Heribert Argelaguet:** *Atmosphere and Telescope Simulator for new Adaptive Optics methods development*

16:40 Coffee break

- 17:10 **Ignacio de la Calle:** *The Cherenkov Telescope Array Project*  
17:30 **Alcione Mora:** *Infrared instrumentation for Antarctica: conceptual design*  
17:50 **José Ignacio Doncel Morales, Subdirector de Planificación de Infraestructuras Científicas y Tecnológicas del MICINN:**  
*MICINN: Support of the ministry for instrumentation developments*

18:20 End of session

19:00 Social event: COCKTAIL OF THE WORKSHOP

FRIDAY, September 25, 2009  
THIRD DAY, Session 4: Developments for the Space

- 9:00 **Fabio Favata:** *Long term planning for ESA instrumentation*  
9:30 **Tomás Belenguer Dávila:** *Challenges on optical design and metrology for space applications*  
10:00 **Francisco Najarro:** *SPICA mission*  
10:30 **Miguel Mas-Hesse:** *PLATO mission*

11:00 Coffee break

- 11:30 **M. Dolores Rodríguez Frías:** *JEM-EUSO mission*  
12:00 **Round table about the Spanish involvement in space instrumentation.** Miguel Mas (chair) , Álvaro Giménez (CAB), Pilar Román (CDTI), Jesús Martín Pintado (CAB), Rafael Vázquez, (GMV), José Moreno (Crisa)

13:30 Lunch

THIRD DAY,  
Session 5: Software development (VO, pipelines, archives, data mining)

- 15:00 **Enrique Solano:** *Spanish Virtual Observatory*  
15:30 **Jordi Torra:** *Analysis of the GAIA data*  
16:00 **Francisco J. Barreiro :** *Tele-operated Remote RAMAN Spectrograph: the next step for planetary exploration*

16:30 End of workshop