

An aerial photograph of a mountain resort town, likely Les Houches, France. The image shows a grid of roads and several buildings, including what appears to be a large observatory structure. The background consists of rolling hills and mountains under a hazy sky.

Welcome!

to the

EuroWinter School

Observing with the Very Large Telescope Interferometer

Les Houches, France

February 3-8, 2002

Fabien Malbet (Left) & Guy Perrin (Right)

School objectives

- Context: Very Large Telescope Interferometer coming on-line soon
 - One of the major facilities in optical interferometry
 - Dedicated to a large astronomical community
- New window on the universe (very high angular resolution)
 - No images in the beginning
 - Different view of the sky compared to classical telescopes
 - Not difficult but not straightforward

⇒ A school to educate astronomers on how to use optical interferometry with a focus on the VLTI

Programme

A) General lectures (30%)

- A1- Introduction to optical interferometry (2 x 2h) - Haniff**
- A2- Presentation of the VLTI and its subsystems (1h) - Glindemann**
- A3- AMBER the near-infrared instrument (1h30) - Petrov**
- A4- MIDI the thermal infrared instrument (1h30) - Perrin**
- A5- Introduction to data reduction (2h) - Chelli**

B) Tutorials and Practice Sessions (50%)

- B1- Sources: models to visibilities (Berger)**
- B2- Observability and uv coverage of sources (Ségransan)**
- B3- Closure phase science (Monnier)**
- B4- Finding calibrator stars (Boden)**
- B5- Observing preparation sequences (Malbet)**
- B6- Introduction to the observing preparation tool ASPRO (Duvert) (30mn)**

Practice work sessions

PWS1 - From user model to visibilities (3h)

PWS2 - Source observability, optimization of the configuration (3h)

PWS3 - Finding calibrators stars (1h)

PWS4 - Sensitivity of the model parameters to the observation error bars (1h)

PWS5 - A complete preparation of the observations: all the phases of preparation (2h)

C) Interactive seminars (20%)

C1- From visibilities to science with simple models (Young)

C2- Disks broad-band observations (Berger)

C3- Stellar surface and closure phase (Buscher)

C4- Differential interferometry (Stee)

C5- Envelope spectral observations (Blöcker)

C6- Dust envelopes at 10 microns (Lopez)

Seminars from participants (Cp)

Presentation of the practical work (Ca, Cb)

D) Poster session

The 30-mn pauses will take place near the poster room.

| | Monday 4 | Tuesday 5 | Wednesday 6 | Thursday 7 | Friday 8 |
|-----|------------------------------|------------------------------|-------------------------------|------------------------------|------------------------|
| 9h | | | A2 – Glindemann | | |
| 10h | A1a Haniff | A1b Haniff | | A5 Chelli | Cb |
| 11h | | | A3 Petrov | | |
| 12h | B1–Berger | B2–Ségransan | | B5–Malbet | C5–Blöcker C6–Lopez |
| 13h | | | | | |
| 14h | B6–Duvert | C2–Berger | A4 Perrin | | |
| 15h | Practice Session PWS–1 | Practice Session PWS–2 | B4–Boden | Practice Session PWS–5 | |
| 16h | | | | | Free Afternoon |
| 17h | | | Practice Sessions PWS–3 | B3–Monnier | |
| 18h | C1–Young | C3–Buscher C4–Stee | PWS–4 Cp | Ca | |

Welcome
aperitif

Fondue

- Breakfast 8:00 - 9:00 am
- Lunch 12:45-1:45 pm
- Dinner 7:30 - 8:30 pm
- Bar closes 10:15 pm
- Meal requests (vegetarian, etc ...): see Sandrine Ortuno
- Welcome apéritif : this evening at 7:00 pm
- Specials:
 - Wednesday evening: RACLETTE (melted cheese dinner)
 - Friday lunch : please notify Sandrine if you won't take lunch or need a picnic bag

- Poster session location : in the main building
- School photograph : Tuesday at 13:50 in front of the school



Acknowledgements

- **Scientific Organising Committee:**

A. Boden (JPL/Caltech), M. Fridlund (ESA), A. Glindemann (ESO), C. Haniff (MRAO, Cambridge), C. Leinert (MPIA, Heidelberg), R. Le Poole (NEVEC, Leiden), D. Mourard (OCA/CNRS), F. Paresce (ESO), R. Petrov (UNSA/CNRS), J. Surdej (Liège), D. Queloz (Genève), G. Weigelt (MPIfR, Bonn)

- **Lecturers**

- **Local Organising Committee:**

- Secretaries : Sandrine Ortuno, Brigitte Rousset, Isabel Lelièvre
- Computers : Ginette Buisson, Richard Mourey, Delphine Buisson
- Practical sessions : Gilles Duvert, Etienne Lecoarer, Eric Tatulli, Karine Perraut

Sponsors

- High Level Scientific Conferences Programme of the European Commission
- CNRS / Centre Jean-Marie Mariotti
- European Southern Observatory
- Centre de Physique des Houches (Université Joseph Fourier, Grenoble)