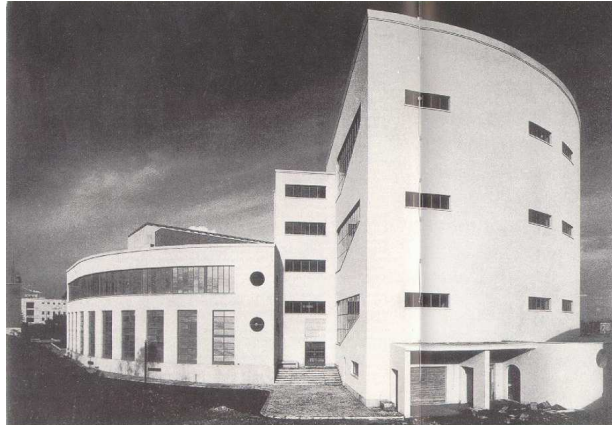


# Analysis and Applied Mathematics Summer School



DIPARTIMENTO DI MATEMATICA  
ISTITUTO "GUIDO CASTELNUOVO"

ROMA, SEPTEMBER 20-24 2004



The aim of the School is provide an overview on various techniques in modern analysis which are strictly related to important problems in applied mathematics, like images processing, fracture mechanics, composite materials and phase transitions. The lectures are intended for PhD students and young researchers in analysis. The common link among the courses will be a 'basic' and rigorous introduction to the math subjects and a discussion of the related applications.

## Lecturers and Courses

**XAVIER CABRÉ** (ICREA-Univ. Politecnica de Catalunya)  
Phase Transition Layers, Minimal Surfaces and Ground States

**GIOVANNA CITTI** (Univ. di Bologna)  
Real Analysis in Lie Groups and Perceptual Completions

**GIANNI DAL MASO** (SISSA, Trieste)  
Variational Models in Fracture Mechanics

**BARBARA NIETHAMMER** (Humboldt Univ., Berlin)  
Averaging Techniques for Models of Phase Transitions

## Sponsors

The school is sponsored by the GNAMPA-INdAM Project "Homogenization techniques and asymptotic methods for multiple-scale problems" (coordinator: V. Chiado' Piat) and by COFIN 2002 through the National Project "Calcolo delle Variazioni" (Rome Local Unit coordinated by A. Braides and Milano Politecnico Local Unit coordinated by F. Tomarelli).

Limited funds are available for young researchers to cover accomodation in double rooms.

### Organizers:

**Valeria Chiado' Piat** (Politecnico di Torino)  
**Adriana Garroni** (Università di Roma "La Sapienza")  
**Carlo Mantegazza** (Scuola Normale Superiore di Pisa)

For more information please see <http://cvgmt.sns.it/roma2004>