



IL MIO VOLER CERCAR
OLTRE LA META

INTERNATIONAL SCHOOL OF SPACE SCIENCE

L'Aquila - ITALY

Planetary Interiors

12-16 September 2016, L'Aquila (Italy)

Programme and Lecturers

THEORETICAL AND OBSERVATIONAL BACKGROUND

- A. Morbidelli (Observatoire de la Côte d'Azur, Nice)
Solar system formation
- D. J. Stevenson (California Institute of Technology, Pasadena, USA)
Physics of planetary interiors, exoplanets
- D. Breuer (DLR, Berlin)
Terrestrial planets and the Moon
- T. Guillot (Observatoire de la Côte d'Azur, Nice)
Gas and ice giants
- G. Tobie (Université de Nantes)
Icy satellites
- U. Christensen (Max-Planck-Institut für Sonnensystemforschung, Göttingen)
Planetary magnetic fields

METHODS AND MEASUREMENTS

- T. Van Hoolst (Royal Observatory of Belgium and KU Leuven, Brussels)
Gravity, rotation, tides
- M. Wiczeorek (Institut de Physique du Globe de Paris)
Gravity and topography
- P. Lognonné (Institut de Physique du Globe de Paris)
Seismic propagation and seismometers
- M. Mastrogiuseppe (Sapienza Università di Roma)
Subsurface sounding
- C. Sanloup (Université Pierre et Marie Curie, Paris)
Laboratory and ab initio data

A SPECIAL OPEN SESSION WILL BE DEDICATED TO
ORAL/POSTER CONTRIBUTIONS OF THE STUDENTS

BOARD OF DIRECTORS:

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THE DIRECTOR OF THE SCHOOL:

- U. Villante umberto.villante@aquila.infn.it

GENERAL INFORMATION

School activities will be held at Gran Sasso Science Institute in L'Aquila (<http://www.gssi.infn.it>).

Applications, including a brief curriculum vitae, are due before **June 12, 2016** through the website

www.cifs-iss.org/application.asp

The fee of 700 Euro includes board and lodging at nearby hotels. Some financial support will be available for a limited number of students. Students are encouraged to present their own contributions in an open session.

Applications will be evaluated by the Scientific Committee of the International School of Space Science, who will decide also on the financial support.

Successful applicants will be notified by e-mail.

SCHOOL RATIONALE

The school is designed for PhD students, young post-doctoral researchers and engineers working in planetary sciences or instrument development for planetary missions. The school will provide an integrated overview of our current understanding of the interior structure and evolution of planets and satellites, focusing on three complementary modules: 1) Theoretical models, 2) Observational methods and measurements, 3) Space instrumentation. The school intends to contribute to the development of a new generation of planetary scientists and engineers motivated by two major upcoming missions of the European Space Agency, BepiColombo to Mercury in 2017 and JUICE to Jupiter and its satellites in 2022, and several other planetary missions (including NASA's JUNO and InSight missions to Jupiter and Mars) designed to probe the interior of planets and moons. Based on an interdisciplinary approach, the school will explain how current and future planetary missions will be able to broaden our knowledge of the interior structure, dynamics, and evolution of solar system bodies. Mission perspectives and challenges on short and longer term will be discussed, and links with exoplanetary research will be explored.

INSTRUMENTATION AND MISSIONS

- M.K. Dougherty (Imperial College, London)
Magnetometers
- P. Tortora (Università di Bologna)
Tracking systems
- H. Hussmann (DLR, Berlin)
Laser altimeters
- M. L'Abbate (Thales Alenia Space, Roma)
Planetary radar
- P. Palumbo (Università di Napoli "Parthenope")
Cameras
- G. Piccioni (Istituto di Astrofisica e Planetologia Spaziali, INAF, Roma)
Spectrometers
- L. Colangeli (ESA)
European planetary program
- E. Flamini (ASI, Roma)
Perspectives in planetary exploration



L'Aquila, Porta Castello