



IL MIO VOLER CERCAR
OLTRE LA META

INTERNATIONAL SCHOOL OF SPACE SCIENCE

L'Aquila - ITALY

Cosmic Ray Physics in Space

12-16 June 2017, L'Aquila (Italy)

Programme and Lecturers

GALACTIC AND EXTRAGALACTIC COSMIC RAYS

- P. Blasi (INAF/Arcetri Astrophysical Observatory, Italy)
Sources, acceleration and propagation of GCRs
- E. Vannuccini (INFN, Firenze, Italy)
Spectrometers for GCRs: past & present
- I. De Mitri (University of Salento, Italy)
Calorimeters for GCRs: past & present
- P. Maestro (University of Siena, Italy)
Elemental abundances and the origin of GCRs
- R. Ulrich (Institute for Nuclear Physics, KIT, Karlsruhe, Germany)
Hadronic interactions and air shower physics
- J. Hoerandel (Radboud University Nijmegen, The Netherlands)
CR ground experiments overlapping with space expts: past & future
- A. Castellina (INAF, Osservatorio Astrofisico di Torino e INFN, Torino, Italy)
UHECR from the ground and in space
- M. Casolino (INFN sezione di Roma Tor Vergata, Italy - Istituto Riken, Japan)
Orbits, spacecraft and space instruments

GAMMA RAYS AND NEUTRINOS

- F. Aharonian (DIAS, Dublin, Ireland / MPI for Nuclear Physics, Heidelberg, Germany)
Gamma-ray physics in space
- L. Latronico (University of Torino, Italy)
Experiments for gamma-ray detection: past & present
- K. Ragan (McGill University, Montreal, Canada)
Future Experiments for gamma-ray detection
- P. Desiati (University of Wisconsin, Madison, USA)
Neutrinos in space

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

BOARD OF DIRECTORS:

- | | | |
|-------------|--------------------------------|---|
| M. Boezio | mirko.boezio@ts.infn.it | INFN, Trieste, Italy |
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| R. Sparvoli | roberta.sparvoli@roma2.infn.it | University of Roma "Tor Vergata", Italy |

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 **March 12, 2017** 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. Successful applicants will be notified by e-mail.

SCHOOL RATIONALE

The course is designed for PhD students and young post-doctoral researchers. The school will offer an overview of current knowledge of the Physics of Galactic Cosmic Rays as observed with space-borne instruments in a broad sense, thus including charged particles and antiparticles, gamma rays and related topics on neutrinos. The connection with ground-based experiments will be explored. The most important space missions of the past, present and future will be presented. A special emphasis will be given to the indirect search for dark matter.

COSMIC RAYS IN THE HELIOSPHERE

- M. Potgieter (North-West University 2520 Potchefstroom, South Africa)
CGR propagation in the heliosphere
- G. de Nolfo (Goddard Space Flight Center, NASA, USA)
Solar activity and Solar Energetic Particles
- R. Gomez-Herrero (University of Alcalá, Spain)
Review of solar missions
- H. Evans (ESTEC, Noordwijk, The Netherlands)
The radiation environment around the Earth
- D. Del Moro (University of Roma "Tor Vergata", Italy)
Space Weather and cosmic rays

DARK MATTER AND COSMIC RAYS

- M. Cirelli (LPTHE Jussieu, Paris, France)
Search for dark matter with cosmic rays
- P. von Doetinchem (University of Hawaii, Honolulu, USA)
Indirect detection of dark matter



L'Aquila, Porta Leoni