GRAN SASSO SCIENCE INSTITUTE
CENTER FOR ADVANCED STUDIES
Istituto Nazionale di Fisica Nucleare

CONSORZIO INTERUNIVERSITARIO PER LA FISICA SPAZIALE

UNIVERSITA' DEGLI STUDI DELL'AQUILA

IL MIO VOLER CERCAR OLTRE LA META

INTERNATIONAL SCHOOL OF SPACE SCIENCE

L'Aquila - ITALY

Heliospheric physical processes for understanding Solar-Terrestrial Relations

21-26 September 2015, L'Aquila (Italy)

Programme and Lecturers

THE SUN AND ITS NEAREST ENVIRONMENT

A. Muñoz-Jaramillo (Montana State University, Bozeman, MT, USA)
Sources of solar variability

F. Zuccarello (University of Catania, Italy)
Manifestations of solar variability

FROM THE SUN TO THE EARTH

W. Matthaeus (University of Delaware, Newark, USA)
The microphysics of solar wind

G. Zimbardo (University of Calabria, Italy)
Particle transport in the heliosphere

A. Rouillard (Institut de Recherche en Astrophysique et Planétologie, Toulouse, France)
Heliospheric variability on short and long timescales

G. Parks (SSL-UC, Berkeley, USA)
The solar wind and the Earth's magnetosphere

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

THE INTERACTION WITH EARTH'S ENVIRONMENT

I. Cnossen (British Antarctic Survey, UK)
Response of the Earth's environment to radiative forcing

G. Parks (SSL-University of California, Berkeley, USA)
Response of the Earth's environment to solar wind changes

P. T. Verronen (Finnish Metereological Institute, Helsinki, Finland)
Response of the Earth's environment to particle forcing

W. T. Ball (PMOD/WRC, Davos, Switzerland)
Impact on climate: role of solar-stratospheric interactions

DATA ANALYSIS AND METHODS

G. Consolini (INAF-Istituto di Astrofisica e Planetologia Spaziali, Roma, Italy)
Time series analysis beyond the classical Fourier approach

T. Dudok de Wit (Laboratoire de Physique et Chimie de l'Environnement et de l'Espace (LPCE2) and Univ. of Orléans, Orléans, France)
Forecasting solar activity at Earth

S. Servidio (University of Calabria, Italy)
Simulations for the physics of Sun-Earth system

W. Matthaeus (University of Delaware, Newark, USA)
Turbulence modeling techniques for global simulation of the Sun-Earth system

N. Agueda (Universitat de Barcelona, Spain)
Interplanetary transport simulations to infer SEP release timescales

Board of Directors:

V. Carbone vincenzo.carbone@fis.unical.it
G. Consolini giuseppe.consolini@iaps.inaf.it
T. Dudok de Wit ddwit@cnrs-orleans.fr

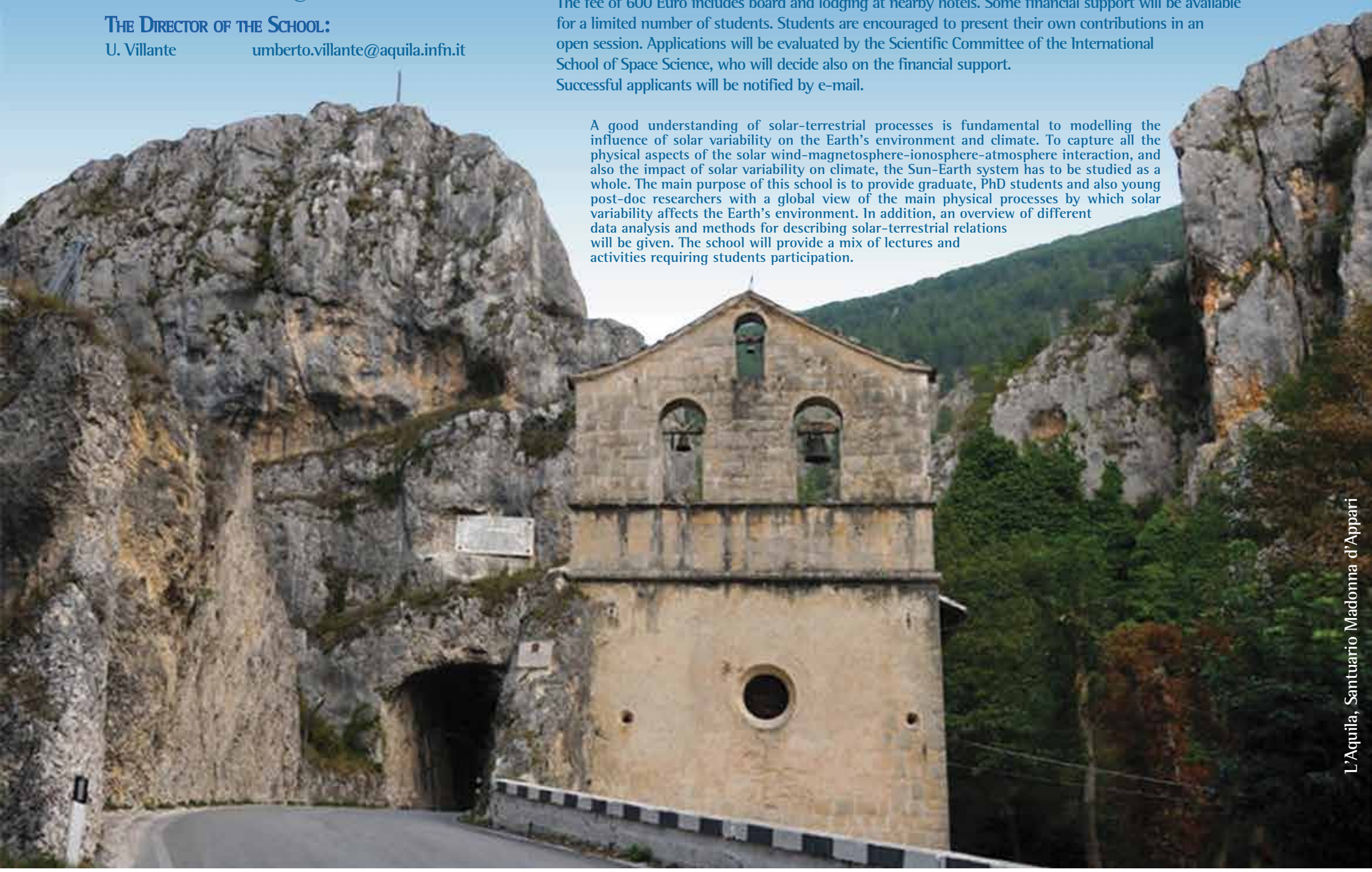
The Director of the School:

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

General Information

School activities will be held at Gran Sasso Science Institute in L'Aquila. Applications, including a brief curriculum vitae, are due before **May 17th 2015** through the website **www.cifs-isss.org/application.asp**
The fee of 600 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.

A good understanding of solar-terrestrial processes is fundamental to modelling the influence of solar variability on the Earth's environment and climate. To capture all the physical aspects of the solar wind-magnetosphere-ionosphere-atmosphere interaction, and also the impact of solar variability on climate, the Sun-Earth system has to be studied as a whole. The main purpose of this school is to provide graduate, PhD students and also young post-doc researchers with a global view of the main physical processes by which solar variability affects the Earth's environment. In addition, an overview of different data analysis and methods for describing solar-terrestrial relations will be given. The school will provide a mix of lectures and activities requiring students participation.



L'Aquila, Santuario Madonna d'Appari

INTERNATIONAL SCHOOL OF SPACE SCIENCE
c/o Dipartimento di Scienze Fisiche e Chimiche
Via Vetoio, 67100 L'AQUILA (ITALY) - **ssc@aquila.infn.it - www.cifs-isss.org**

The International School of Space Science is supported by:
Consorzio "Area di Ricerca in Astrogeofisica", Fondazione CARISPAQ
Comune dell'Aquila, INAF-IAPS, University of Calabria, ASI