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

The different spatio-temporal scales of the solar magnetism

11-15 April 2022

Programme and Lecturers

THE GLOBAL MAGNETIC FIELD OF THE SUN AND THE SOLAR CYCLE

T. Chatzistergos - Max Planck Institute for Solar System Research, Germany
The solar cycle over the centuries

P. Charbonneau - Université de Montréal, Canada
Dynamo models of the solar cycle

K. Petrovay - Eötvös Loránd University, Budapest, Hungary
Solar cycle prediction

SUNSPOTS: PROCESSES OF FORMATION AND EVOLUTION AND THE FINE-STRUCTURE OF UMBRAE AND PENUMBRAE

J. Joshi - Indian Institute of Astrophysics, Bangalore, India
3D sunspot structure

R. Louis - Udaipur Solar Observatory, PRL, India
Sunspot light bridges: magnetic configuration and activity

M. Murabito - INAF-Osservatorio Astronomico di Roma, Italy
Structure and evolution of the penumbra

MHD SIMULATIONS

M. Rempel - High Altitude Observatory, Boulder, USA
Small-scale dynamos on the Sun

M. Cheung - Lockheed Martin Solar and Astrophysics Laboratory, USA
Sunspot simulations

D. Nóbrega-Siverio - Instituto de Astrofísica de Canarias, IAC, Spain
Simulations of flux emergence events

THE SMALL-SCALE MAGNETIC FIELD: EMERGENCE AND EVOLUTION

L. Bellot Rubio - Instituto de Astrofisica de Andalucía, IAA-CSIC, Spain
Structure and properties of small-scale magnetic fields

D. Del Moro - University of Rome "Tor Vergata", Roma, Italy
Surface processes

S.L. Guglielmino - INAF-Osservatorio Astrofisico di Catania, Italy
Coupling of the solar atmosphere by small-scale fields

MAGNETIC FIELD INSTABILITIES/RECONNECTION, ERUPTIVE EVENTS AND THEIR IMPACT ON SPACE WEATHER

F. Zuccarello - Università di Catania, Italy
Overview of eruptive events occurring in the solar atmosphere

M. Madjarska - Max Planck Institute for Solar System Research, Germany
Magnetic flux and coronal bright points

M. Temmer - University of Graz, Austria
CMEs and their impact on Space Weather

BOARD OF DIRECTORS:

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SCHOOL SECRETARIAT:

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THE DIRECTOR OF THE SCHOOL:

U. Villante

SCHOOL RATIONALE

The School is aimed at providing an in-depth overview of the magnetic phenomena occurring in our star, as well as at presenting some of the most recent tools that can allow to directly tackle the analysis of the problems that are still present in the comprehension of solar magnetic phenomena, through hands-on sessions. The main topics that will be examined are: the global magnetic field of the Sun and the solar cycle; the small-scale magnetic field: emergence and evolution; the global and local dynamo; the sunspots: processes of formation and evolution and the fine-structure of umbrae and penumbrae; magnetic field instabilities, eruptive events and their impact on Space Weather.

GENERAL INFORMATION

The School will be held at the Università degli Studi dell'Aquila.
Applications, including a brief curriculum vitae, are due before 21/11/2021. See the website www.cifs-isss.org/application.asp for details.
The fee of 1000 Euro includes board and lodging in shared double rooms at nearby hotels and B&Bs. Some financial support will be available for a limited number of students on request.
Applications will be evaluated by the Scientific Committee of the International School of Space Science. All applicants will be notified by e-mail.

All participants must be aware of the measures adopted in Italy for the epidemiological emergency from Covid-19 (Order of June 18, 2021).

INTERNATIONAL SCHOOL OF SPACE SCIENCE
c/o Dipartimento di Scienze Fisiche e Chimiche. Università degli Studi dell'Aquila (Italy)
School Secretariat: ssc@aquila.infn.it - www.cifs-isss.org

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