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
- P. Charbonneau - Université de Montréal, Canada
- K. Petrovay - Eötvös Loránd University, Budapest, Hungary

THE SMALL-SCALE MAGNETIC FIELD: EMERGENCE AND EVOLUTION
- L. Bellot Rubio - Instituto de Astrofísica de Andalucía, IAA-CSIC, Spain
- D. Del Moro - University of Rome “Tor Vergata”, Italy
- S.L. Guglielmino - INAF-Osservatorio Astronomico di Catania, Italy

SUNSPOTS: PROCESSES OF FORMATION AND EVOLUTION AND THE FINE-STRUCTURE OF UMBRAE AND PENUMBRAE
- J. Joshi - Indian Institute of Astrophysics, Bangalore, India
- R. Louis - Udaipur Solar Observatory, PRL, India
- M. Murabito - INAF-Osservatorio Astronomico di Roma, Italy

MHD SIMULATIONS
- M. Rempel - High Altitude Observatory, Boulder, USA
- M. Cheung - Lockheed Martin Solar and Astrophysics Laboratory, USA
- D. Nóbrega-Siverio - Instituto de Astrofísica de Canarias, IAC, Spain

MAGNETIC FIELD INSTABILITIES/RECONNECTION, ERUPTIVE EVENTS AND THEIR IMPACT ON SPACE WEATHER
- F. Zuccarello - Università di Catania, Italy
- M. Madjarska - Max Planck Institute for Solar System Research, Germany
- M. Temmer - University of Graz, Austria

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 dynamos; 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-iss.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).