

STCE Newsletter

21 Jan 2013 - 27 Jan 2013



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The Solar-Terrestrial Centre of Excellence (STCE) is a collaborative network of the Belgian Institute for Space Aeronomy, the Royal Observatory of Belgium and the Royal Meteorological Institute of Belgium.

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1. Junior College

Junior College is an interdisciplinary educational project in Belgium (Flanders), organized by the University of Leuven (KU Leuven). It is a challenging program for high school students in their last year. It wants to bridge high school and university and spark the interest of the students in science.

Among other sciences, Junior College provides material for courses in mathematics related to diverse themes. A new inspiring course is - Mathematics behind the observation and detection of Space Weather phenomena. It offers a closer look at an example of the mathematics behind the detections of Coronal Mass Ejections (CME's) on one hand, and behind satellite data processing at the other hand. These two modules deal with the transformation of co-ordinate systems, the Hough transform, projective geometry, matrix transformations, ... a way of bringing impressive science to the level of high school students.

The kick-off meeting for this academic year took place on January 8 and 10 at the KU Leuven and KU Leuven Kulak. The STCE was invited to submerge the students into the Sun and space weather. Movies, pictures of spectacular solar eruptions and the PROBA2 story illustrated how exciting it is. The message was clear: space weather is an attractive science to further investigate, and indeed an actual topic.



The picture above is the front page of the study material that students and teachers get at the kick-off. The course provides theory and exercises on the topic - Mathematics behind detection and observation of space weather. The text is written in Dutch, in accordance to the teaching language.

Check out the presentations:

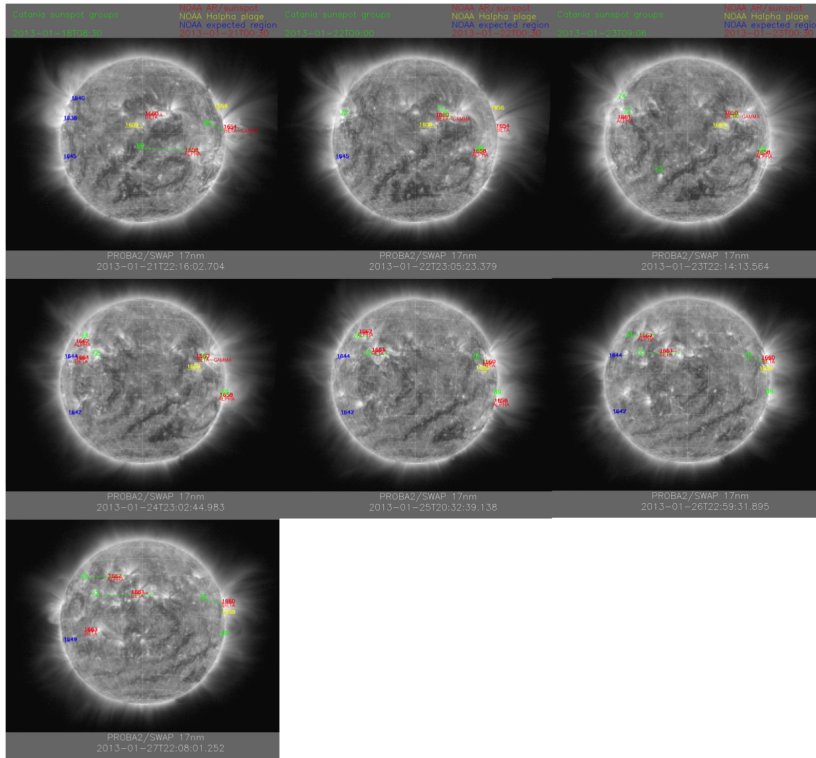
<http://spaceweather.eu/en/repository/show?id=421>

<http://spaceweather.eu/en/repository/show?id=422>

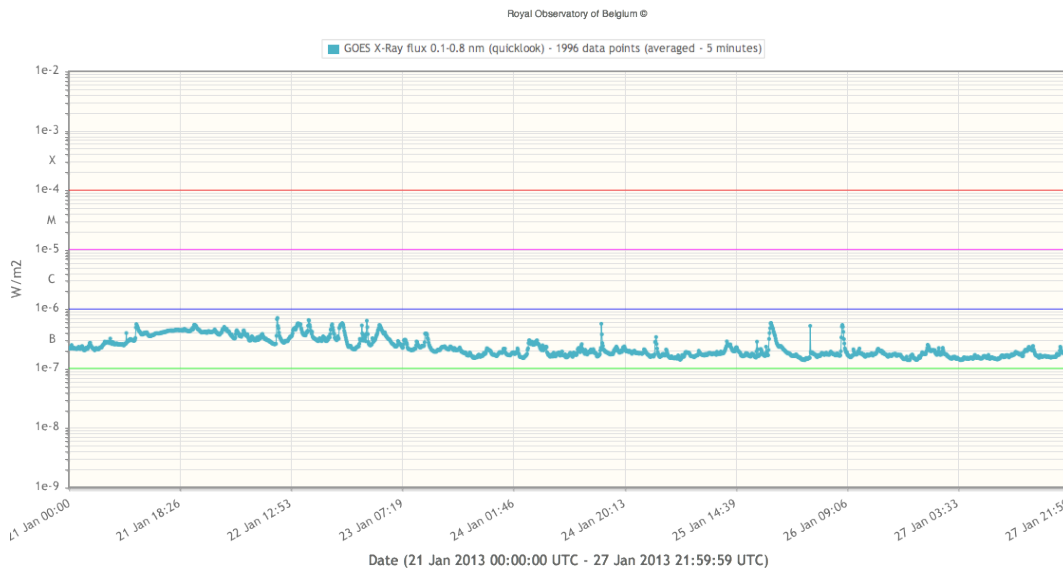
2. Review of solar activity (21 Jan 2013 - 27 Jan 2013)

Eight sunspot groups were reported during the week, with the following NOAA AR numbers (Catania numbers given in brackets): 1654 (64), 1658 (69), 1660 (70 and 71), 1661 (72), 1662 (74), and 1663 (an

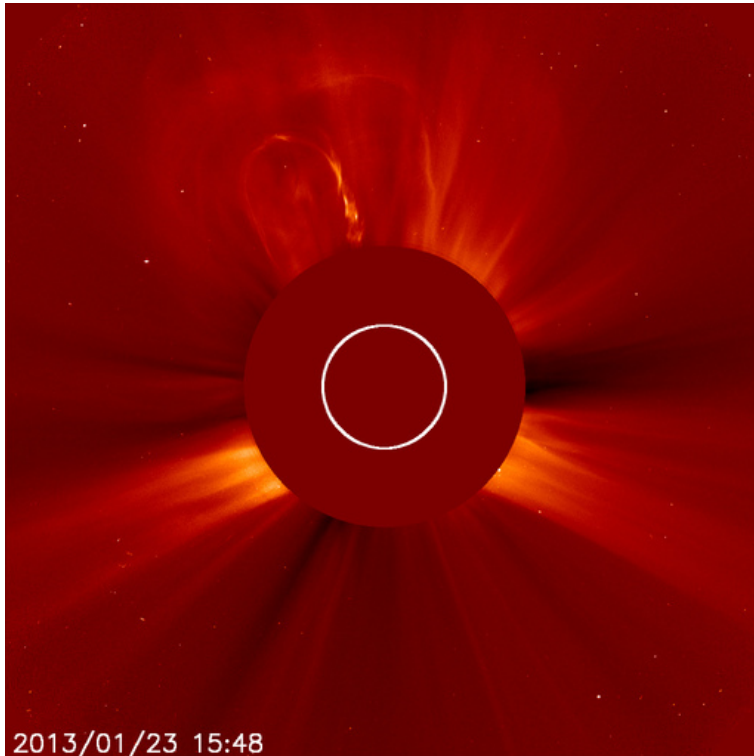
associated Catania number was given on Jan 30: 75), as well as Catania sunspot group 73 (no NOAA AR number). The sunspot group 73 was only labelled for 1 day. The picture below shows the Sun in 17nm taken by SWAP onboard of PROBA2 from Jan 21 to Jan 27. On the picture, the location of the sunspots and the active regions is drawn.



The flaring activity was below the C-level, with the strongest flare of the week being the B7.7 flare peaking on January 22 at 10:33 UT in Catania sunspot group 70 (NOAA AR 1660). The picture below shows the X-ray radiation measured by the geostationary satellite GOES.

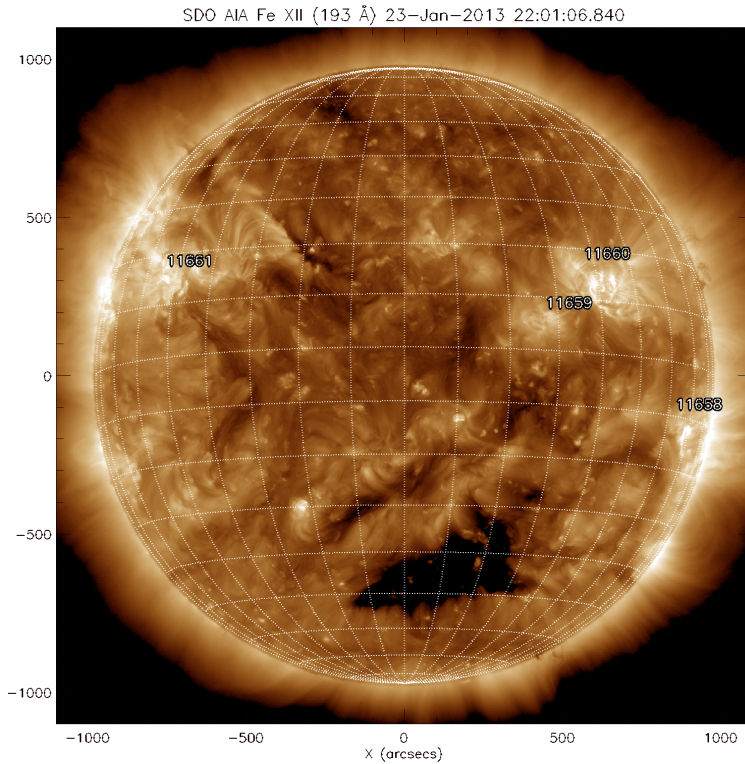


A partial halo CME was detected by SOHO/LASCO on January 23, first appearing in the LASCO C2 field of view at 14:00 UT. The picture shows the CME in white light and is taken by the coronagraph LASCO onboard of SOHO.



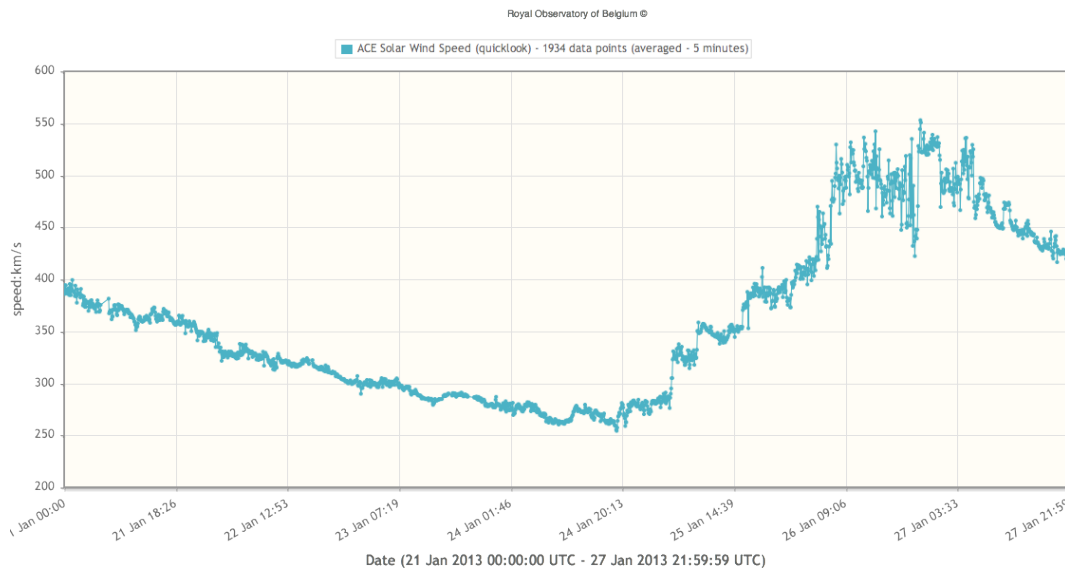
It had the angular width around 240 degrees and projected plane-of-the-sky speed around 560 km/s. The CME was associated with a filament eruption around N19E43, coronal dimmings, an EIT wave, and a post-eruption arcade observed by SDO/AIA. The CME was directed northward of the Sun-Earth line and did not arrive at the Earth.

A low-latitude coronal hole in the southern hemisphere reached the solar central meridian on January 22. The corresponding fast solar wind stream arrived at the Earth on January 26 (see the section 'geomagnetic activity').

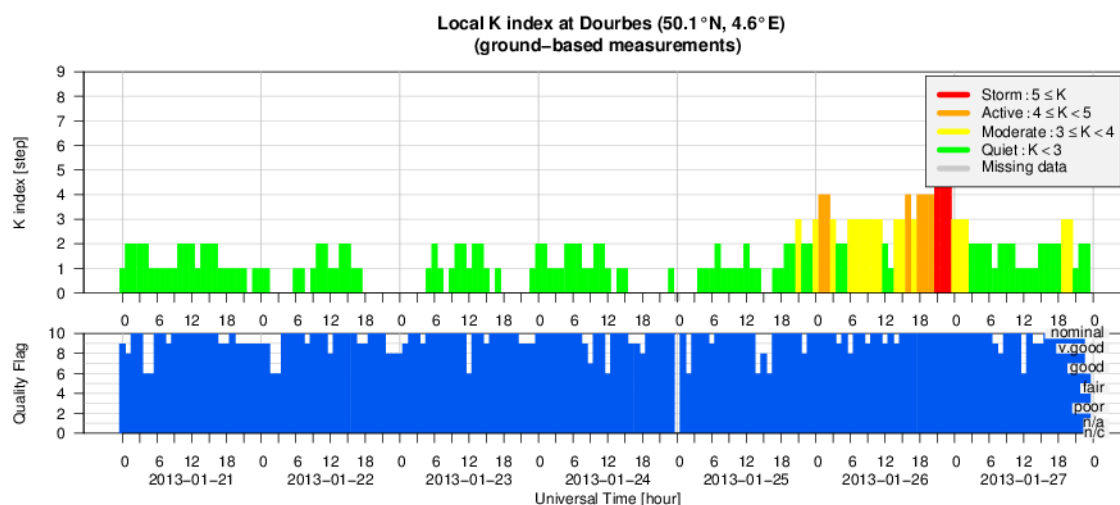


3. Review of geomagnetic activity (21 Jan 2013 - 27 Jan 2013)

In the beginning of the week the Earth was situated inside a slow solar wind flow. The geomagnetic situation was quiet. On January 26 the Earth entered the fast solar wind stream from a low-latitude coronal hole in the southern hemisphere (see the section 'solar activity') as the solar wind speed reached 550 km/s. On January 26 minor storm conditions ($K = 5$) were reported by Dourbes and IZMIRAN, and active geomagnetic conditions ($K = 4$) were reported by NOAA. On January 27 the solar wind speed started to decrease and geomagnetic conditions returned to quiet. An overview of the solar wind speed near the L1 point is given in the picture below.



4. Geomagnetic Observations at Dourbes (21 Jan 2013 - 27 Jan 2013)



5. New documents in the European Space Weather Portal Repository

See <http://www.spaceweather.eu/en/repository>

Effects of the ionosphere on RF systems topical working group

<http://www.spaceweather.eu/en/repository/show?id=408>

eHEROES - De Zon en PROBA2

A presentation given during the open doors of the public observatory Urania, Hove. 60 people participated and were instructed about our Sun, Space Weather and how PROBA2 operates as a satellite monitoring space weather. The latest scientific outcome of SWAP and LYRA, two scientific space weather instruments onboard of PROBA2 was presented.

<http://www.spaceweather.eu/en/repository/show?id=409>

ESWW9-splinter: Space Weather Working Team/SWWT

ESWW9 Splinter wrap up of the Space Weather Working Team.

<http://www.spaceweather.eu/en/repository/show?id=410>

ESWW9-splinter: Education, Outreach and Emerging Markets

Splinter wrap up of the SWWT Topical Working Group 'Education, Outreach and Emerging Markets Topical Working Group.

<http://www.spaceweather.eu/en/repository/show?id=412>

ESWW9-splinter: PROBA2/SWAP and LYRA Science Meeting

Splinter wrap up of the PROBA2/SWAP and LYRA Science Meeting

<http://www.spaceweather.eu/en/repository/show?id=413>

Panel on Space Weather: report 2004

<http://www.spaceweather.eu/en/repository/show?id=414>

Panel on Space Weather: report 2006

<http://www.spaceweather.eu/en/repository/show?id=415>

Panel on Space Weather: report 2008

<http://www.spaceweather.eu/en/repository/show?id=416>

Panel on Space Weather: report 2010

<http://www.spaceweather.eu/en/repository/show?id=417>

Panel on Space Weather: report 2012

<http://www.spaceweather.eu/en/repository/show?id=418>

ESWW9-splinter: Ionospheric Effects Working Group Splinter Meeting

<http://www.spaceweather.eu/en/repository/show?id=407>

ESWW9-splinter: Atmospheric Effects

ESWW9 Splinter wrap up of the SWWT topical group 'Atmospheric Effects'.

<http://www.spaceweather.eu/en/repository/show?id=411>

eHEROES - Sources of CME Material - Presentation to Solar Orbiter 5 Workshop

Mass Estimates of Rapidly-moving Prominence Material We present a new method for estimating the column mass (the mass contained within a pixel) of non-fully ionised hydrogen and helium (H I, He I and He II) using the properties of the bound-free photo-absorption cross section at multiple wavelengths. Until now, such estimates have not been reliable with imaging-only techniques, but the near-simultaneity of the images taken by the Solar Dynamics Observatory Advanced Imaging Assembly means that we can now estimate the opacity due to erupting filament material that passes through a previously unobscured patch of Sun. To test this idea, we use data from the spectacular filament eruption that was seen on 2011 June 07, when visual inspection of the erupting material indicated that the material returning to the Sun's surface was highly opaque. The best-fit maps column density and filling factor reveal both high hydrogen column densities in the centre of this test blob, in line with the higher end of measurements previously made, and suggest that the filling factor of this material approaches unity. The technique converges quickly and we plan to extend it to measuring both the full filament mass and the mass of non-erupting filaments on the Sun.

<http://www.spaceweather.eu/en/repository/show?id=420>

eHEROES - Junior College: De Zon, ruimteweer en PROBA2

Presentation given at the kick-off of Junior College in Leuven on January 8, 2013 - 200 students - and January 10, 2013 - 80 students. Junior College is an interdisciplinary educational project in Belgium (Flanders), organized by the University of Leuven (KU Leuven). It provides a challenging program to high school students in their last year of high school. The aim is to create a first bridge between high school and university and to spark their interest in science. The lecture fits in the frame of eHEROES, an FP7 project that incorporates a work package 'dissemination'. The STCE is a partner within the eHEROES project.

<http://www.spaceweather.eu/en/repository/show?id=421>

eHEROES - Jr College: De Zon, het weer en PROBA2

Presentation given at the kick-off of Junior College in Kortrijk on January 8, 2013 and January 10, 2013, each time for 100 students. Junior College is an interdisciplinary educational project in Belgium (Flanders), organized by the University of Leuven (KU Leuven). It provides a challenging program to high school students in their last year of high school. The aim is to create a first bridge between high school and university and to spark their interest in science. The lecture fits in the frame of eHEROES,

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<http://www.spaceweather.eu/en/repository/show?id=422>

6. Future Events

For more details, see <http://www.spaceweather.eu/en/event/future>

Understanding the Dynamics of the Sun using Helioseismology and MHD Simulations in NASA Ames Research Center, CA (USA)

Start : 2013-02-04 - End : 2013-02-08

Helioseismology provides tools for imaging structures and mass flows below the solar surface, and is becoming an essential technique for understanding the dynamics of solar activities and developing physics-based forecasts of the solar cycle, emerging active regions and energy release events. A better understanding is needed to unravel the effects of the complex interactions of solar oscillations with the turbulent magnetized plasma on global and local helioseismology diagnostics. These effects are particularly challenging in regions of strong magnetic fields. Numerical simulations of solar MHD waves and turbulent dynamics give important insights into the complicated wave and turbulence physics, and provide synthetic data for verification and validation of helioseismology methods and results.

The goals of this workshop are to discuss and stimulate further development of helioseismology methods, solar interior models, and realistic numerical simulations. These goals are particularly important for analysis of the continuous data flow from the Solar Dynamics Observatory, development and verification of helioseismology methods, and for theoretical interpretation of observations and inversion results.

Website:

<http://sun.stanford.edu/LWS2013/>

AFFECTS User Workshop in Brussels, Belgium

Start : 2013-02-28 - End : 2013-02-28

On February 28th, 2013 the AFFECTS team organises an international user workshop at the Royal Observatory of Belgium in Brussels.

At the workshop there will be a demonstration of all AFFECTS space weather products:

- * Near real time dimming and EIT wave detection
- * 3D CME analysis tool
- * Coronal analysis tool
- * CME & solar wind arrival and impact forecast tool
- * Flare, CME , geomagnetic, auroral, ionospheric forecasts & alerts
- * Forecast of perturbed TEC
- * Solar activity and space weather timelines viewer

To register, please send an e-mail incl. your full name, institution, e-mail and (institutional) address to .
DÄrte Dannemann

Website:

<http://www.affects-fp7.eu/news-events/user-ws/>

9th GEANT4 space users' workshop in Barcelona, Spain

Start : 2013-03-04 - End : 2013-03-06

Geant4 Space Users' Workshop -G4SUW- is focused on new results on space radiation interaction with components, sensors and shielding analysis, as well as on Geant4-based tools and developments applicable to space missions.

The Geant4 particle transport toolkit is jointly developed by a world-wide collaboration and is intended for a wide range of applications in HEP, medical field, and space physics and engineering. In recent years, space and astrophysics has become a significant user category, with applications ranging from instrument and detector response verification to space radiation shielding optimization, component effects, support of scientific studies, and analysis of biological effects.

Main topics for next G4SUW will include:

- * Single Event Effects (SEE) simulation.Geant4-TCAD coupling.
- * Microdosimetry.
- * Planetary exploration applications.
- * Space electronics and science detectors.
- * Simulation of astronaut radiation hazards.
- * Interfaces and tools to space environment analysis tools such as SPENVIS.
- * Cosmic ray magnetospheric propagation analysis.
- * Large-scale simulations requiring event biasing and/or GRID capabilities.
- * General shielding optimization applications.

Website:

<http://www.inta.es/g4suw2013/index.html>

1st Solar Probe Plus Workshop in Pasadena, CA (USA)

Start : 2013-03-26 - End : 2013-03-29

The first Solar Probe Plus Workshop will take place at the Beckman Institute auditorium, California Institute of Technology, Pasadena, from March 26th to 29th, 2013. SPP1 will introduce the Heliophysics community to the mission and prepare for the exciting discoveries that the Solar Probe Plus mission will make. The Workshop will explore the scientific objectives of the Solar Probe Mission and how the direct exploration of the corona and inner heliosphere will lead to advances in our understanding of coronal heating and solar wind acceleration, the magnetic and plasma structure of the heliosphere, and the acceleration of energetic particles at shocks and flares. The workshop will inspire research that will make use of the SPP observations within the context of the NASA Heliophysics Observatory System and identify key areas for preparatory research. Synergistic observations from other ground based and space based assets will also be addressed.

Website:

<http://www.solarprobeplus.org/>

European Geosciences Union General Assembly 2013 in Vienna, Austria

Start : 2013-04-07 - End : 2013-04-12

The EGU General Assembly 2013 will bring together geoscientists from all over the world into one meeting covering all disciplines of the Earth, Planetary and Space Sciences. Especially for young scientists, it is the aim of the EGU to provide a forum where they can present their work and discuss their ideas with experts in all fields of geosciences. The EGU is looking forward to cordially welcoming you in Vienna.

Website:

<http://www.egu2013.eu/home.html>

Causes and Consequences of the Extended Solar Minimum Between Solar Cycles 23 and 24 (4CESM) in Key Largo, FL (USA)

Start : 2013-04-08 - End : 2013-04-12

The most recent solar minimum, solar cycle 23-24 minimum, was unusually long (266 spotless days in 2008, the most since 1913), and the magnetic field at the solar poles was approximately 40% weaker than the last cycle; and unusually complex (the solar wind was characterized by a warped heliospheric current sheet, HCS, and fast-wind streams at low latitudes: the fast-wind threads the ecliptic more commonly in 2008 than 1996.) This complexity resulted in many effects observed from Sun to Earth, with many observations indicating unusual conditions on the Sun, in the heliosphere, and in the magnetosphere, ionosphere, and upper atmosphere of the Earth.

This remarkable set of conditions provide the scientific community with an exceptional opportunity to assess the nature and structure of a very quiet Sun, and an upper atmosphere relatively devoid of solar influences, helping to provide a better understanding of the relative roles of solar activity and internal variability in the dynamics of the Earth's upper atmosphere and ionosphere. Such an understanding requires a multidisciplinary approach.

The main goal of the conference is to bring together the solar, heliospheric, magnetospheric, upper atmosphere, and ionospheric communities to debate and discuss interdisciplinary work and reach a better understanding of the nature and structure of a very quiet Sun, and of an upper atmosphere relatively devoid of solar influences, and in doing so, to help clarify the role of solar activity in the dynamics and variability of the Earth's upper atmosphere and ionosphere relative to the internal variations.

Website:

<http://chapman.agu.org/solarminimum/>

The physics of flares in the lower solar atmosphere in London, UK

Start : 2013-04-12 - End : 2013-04-12

Solar flares are impulsive releases of energy in the Sun's corona and yet it is emission from the lower atmosphere (the photosphere and chromosphere) that contains the bulk of the energy. This radiation also provides some of the best diagnostics of the flaring process. The availability of optical, UV/EUV and hard X-ray observations, made with the current fleet of space-based (SDO, Hinode, RHESSI, etc.) and ground-based (ROSA, IBIS, Big Bear, etc.) observatories, combined with recent developments in flare modelling, presents a timely opportunity to study the cause and effect of energy deposition in the lower solar atmosphere. The combination of multi-wavelength observations with advanced numerical simulations can provide key insights into the processes of particle acceleration, plasma heating, energy transport, and wave propagation.

This Royal Astronomical Society discussion meeting will focus on work investigating the response of the solar and stellar atmospheres during a flare's impulsive phase and we welcome contributions from both observation and theory.

Website:

http://www.astro.gla.ac.uk/?page_id=827

Synoptic Network Workshop in Boulder, USA

Start : 2013-04-22 - End : 2013-04-24

The workshop is being held to discuss and gather community input on science requirements, capabilities and instrumentation for a next-generation synoptic network of solar observing instruments. It is highly probable that such a network should obtain multi-wavelength data, and the intended targets include space weather, helioseismology and solar magnetic fields.

Website:

<https://www2.hao.ucar.edu/synoptic-network-workshop>

NSO Workshop #27: 50 Years of the Seismology of the Sun and Stars in Sunspot, NM (USA)

Start : 2013-05-06 - End : 2013-05-10

In the last 50 years, helioseismology has made significant contributions to the knowledge of the Sun's interior physics and has led the way to asteroseismology. We have now reached an era where more sophisticated questions are being asked to understand the subtle properties of the Sun and other stars due to the synoptic and high-resolution observations available from BISON, GONG and space missions such as SOHO , SDO, CoRot and Kepler.

On this occasion, a workshop on the theme of '50 years of the seismology of the Sun and stars' is being organized to reflect the progress that has been made as well as to focus on future goals. We plan to bring together helio- and asteroseismologists, theorists and observers in a journey that will take us from the interior of the Sun and its magnetism towards the structure of distant stars and activity cycles.

Website:

<http://www.nso.edu/workshops/2013>

2013 UAHuntsville Space Weather Summer School in Huntsville, Alabama, USA

Start : 2013-05-29 - End : 2013-06-07

Website:

<http://swssuah2013.pbworks.com/w/page/60509553/FrontPage>

Space Climate Symposium-5 in Oulu, Finland

Start : 2013-06-11 - End : 2013-06-15

Space Climate is an interdisciplinary science that deals with the long-term change in the Sun, and its effects in the heliosphere and in the near-Earth environment, including the atmosphere and climate. A special focus will be on studies of the causes, consequences and implications of the present, unusually low solar activity since solar cycle 23 that, most likely, indicates the imminent end of the Modern Grand Maximum of solar activity. Other topics include solar dynamo, solar irradiance variations, solar wind, geomagnetic field and activity, cosmic rays and cosmogenic isotopes, and solar effects on different layers of the atmosphere and on local and global climate, as well as possible solar effects on human health and on the development of human cultures.

Website:

<http://www.spaceclimate.fi/>

ISEST (International Study for Earth-Affecting Solar Transients) Workshop in Hvar, Croatia

Start : 2013-06-17 - End : 2013-06-20

The workshop is to improve the scientific understanding of the origin and propagation of solar transients, and develop the prediction capacity of these transients' arrival and potential impact on the Earth.

This workshop is the activity of the ISEST program in CAWSES-II / Task Group 3. The workshop engages coordinated international activities in observation, theory and modeling, and involves scientists in both developed and developing countries, and provides an online platform for educational opportunities for students.

Website:

<http://spaceweather.gmu.edu/meetings/ISEST/Home.html>

ILWS Science Workshop in Irkutsk, Russia

Start : 2013-06-23 - End : 2013-06-29

The 2013 ILWS Science Workshop will take place June 23-29, 2013 in Irkutsk, Russia and will be hosted by the Institute of Solar-Terrestrial Physics of the Russian Academy of Sciences

Website:

http://en.iszf.irk.ru/ILWS_2013

Asia Oceania Geosciences Society (AOGS) Annual Meeting in Brisbane (Australia)

Start : 2013-06-24 - End : 2013-06-28

Asia Oceania Geosciences Society (AOGS) was established in 2003 to promote geosciences and its application for the benefit of humanity, specifically in Asia and Oceania and with an overarching approach to global issues.

Asia- Oceania region is particularly vulnerable to natural hazards, accounting for almost 80% human lives lost globally. AOGS is deeply involved in addressing hazard related issues through improving our understanding of the genesis of hazards through scientific, social and technical approaches.

AOGS holds annual conventions providing a unique opportunity of exchanging scientific knowledge and discussion to address important geo-scientific issues among academia, research institution and public. Recognizing the need of global collaboration, AOGS has developed good co-operation with other international geo-science societies and unions such as the European Geosciences Union (EGU), American Geophysical Union (AGU), International Union of Geodesy and Geophysics (IUGG), Japan Geo-science Union (JpGU), and Science Council of Asia (SCA).

Website:

<http://www.asiaoceania.org/aogs2013/public.asp?page=home.htm>

2013 Heliophysics Summer School in Boulder, Colorado (USA)

Start : 2013-07-12 - End : 2013-07-19

Applications are invited for the 2013 Heliophysics Summer School, which will be held in beautiful Boulder, Colorado. We are seeking students and undergraduate level teachers and instructors to join us this coming summer for a unique professional experience. Students and teachers will learn about the exciting science of heliophysics as a broad, coherent discipline that reaches in space from the Earth's troposphere to the depths of the Sun, and in time from the formation of the solar system to the distant future. At the same time, a goal of the Summer School is for the group of instructors to develop materials from Heliophysics that can be applied in their classes.

The Heliophysics Summer School focuses on the physics of space weather events that start at the Sun and influence atmospheres, ionospheres and magnetospheres throughout the solar system. The solar system offers a wide variety of conditions under which the interaction of bodies with a plasma environment can be studied: there are planets with and without large-scale magnetic fields and associated magnetospheres; planetary atmospheres display a variety of thicknesses and compositions; satellites of the giant planets reveal how interactions occur with subsonic and sub-Alfvenic flows whereas the solar wind interacts with supersonic and super-Alfvenic impacts.

Encompassed under a general title of comparative magnetospheres are processes occurring on a range of scales from the solar wind interacting with comets to the interstellar medium interacting with the heliosphere. The school will address not only the physics of all these various environments but will also go into the technologies by which these various environments are being observed. The program is complemented with considerations of the societal impacts of space weather that affects satellites near Earth and elsewhere in the solar system.

The school will be based on lectures, laboratories, and recitations from world experts, and will draw material from the three textbooks Heliophysics I-III, published by Cambridge University Press.

Several teachers along with about 35 students will be selected through a competitive process organized by the UCAR Visiting Scientist Programs. The school lasts for eight days, and each participant receives full travel support for airline tickets, lodging and per diem costs.

Website:

<http://www.vsp.ucar.edu/Heliophysics/>

Space weather summer school in Alpbach, Austria

Start : 2013-07-16 - End : 2013-07-25

The Summer School Alpbach enjoys 36 years of tradition in providing in-depth teaching on different topics of space science & technology, featuring lectures and concentrated working sessions on mission studies in self-organised working groups. 60 young highly qualified European science and engineering students converge annually for stimulating 10 days of work in the Austrian Alps. 4 teams compete to design a space mission judged by a jury of experts. Students learn how to approach the design of a satellite mission and explore new and startling ideas supported by experts. The Summer School 2013 will focus on Space Weather .

The purpose of the Summer School is to foster the practical application of knowledge derived from lectures, to develop organisational and team-work skills and to encourage creativity. Teams will compete to design the best project, judged by an independent jury. The teams themselves are responsible for the selection of the subject of the project and for the team structure and working methods.

Website:

<http://www.summerschoolalpbach.at/>

2013 CISM Summer School, in Boulder, Colorado, USA

Start : 2013-07-22 - End : 2013-08-02

The CISM Summer School is intended to give students a comprehensive immersion in the subject of space weather: what it is, what it does, and what can be done about it. Space weather is many things: beautiful when seen through the eyes of a sun-viewing telescope, fascinating when studied for its alien worlds of magnetic structures and phenomena, awesome when witnessed as a solar eruption or auroral storm, and devastating to the users of services it disrupts. Space weather links the Sun, the Earth, and the space in between in a branching chain of consequences. Weather systems on the Sun can spawn interplanetary storms of colossal size and energy that envelop the whole planet in electrical hurricanes.

Such storms attack high-tech, complex, and expensive technological systems that provide much of the infrastructure that allows modern society to function.

Website:

<https://www2.hao.ucar.edu/docs/2013-cism-summer-school>

XIIth IAGA Scientific Assembly in Merida, Yucatan, Mexico

Start : 2013-08-16 - End : 2013-08-31

The Local Organising Committee and the Mexico National Committee of IUGG have the great pleasure to welcome you to the 11th Scientific Assembly of the International Association of Geomagnetism and Aeronomy (IAGA) which is held in Mérida Yucatán, Mexico from 26 to 31 August 2013 with the motto: "Living on a Magnetic Planet". Our Magnetic Planet Capricious (Changeable or Unpredictable) Field.

In order to increase the visibility and attractiveness of IAGA to young researchers, to motivate them to play active role within IAGA and to create (and enhance) their awareness of IAGA and sense of belonging to IAGA, the first IAGA Summer School will be organized just prior the Assembly. The summer school will provide overview of the activities carried out within all the IAGA divisions, with subjects from paleomagnetism and magnetic anisotropy through observatories and geomagnetic field modeling to ionospheric and aeronomic research. At least 20 young scientists from all around the world will be invited based on the nominations from Working Groups and Divisions. Special call and more information will be published before the end of 2012.

Website: <http://iaga2013.org.mx/>

7th International Workshop on Solar Polarization in Kunming, China

Start : 2013-09-09 - End : 2013-09-14

We gain information about the universe through analysis of the spectra from celestial objects. However, while the intensity spectrum represents a scalar quantity but electromagnetic radiation occurs in the form of transverse waves, the polarized spectrum provides us with a 4-vector, the Stokes vector. The increased amount of information space opens new windows to the universe, in particular for the exploration of magnetic fields. It is well recognized that the magnetic field is a primary agent responsible for structuring and the source of all variability on intermediate time scales, which manifests itself in all forms of solar and stellar activity.

It is therefore not surprising that every year there are many scientific meetings organized with the objective of studying the role of magnetic fields in cosmic objects. What is largely missing in these meetings is however an in-depth investigation of the fundamental aspects of how magnetic fields can be determined by the means of spectro-polarimetry, our main gateway to cosmic magnetism. The primary aim of our series of Workshops is to address these fundamental aspects, with less emphasis on the morphological and physical properties of cosmic magnetic fields.

Website: <http://spw7.ynao.ac.cn/>

International CAWSES-II Symposium in Nagoya, Japan

Start : 2013-11-18 - End : 2013-11-22

This International CAWSES-II Symposium hosted by SCOSTEP (Scientific Committee on Solar-Terrestrial Physics) will provide an excellent opportunity to discuss the scientific accomplishments of CAWSES-II and look forward to SCOSTEP's future programs at a moment toward the end of its five-year period. The symposium will cover the six major themes of CAWSES-II tasks: 1) What are the solar influences on the Earth's climate?, 2) How will geospace respond to an altered climate?, 3) How does short-term solar variability affect the geospace environment?, 4) What is the geospace response to variable inputs from the lower atmosphere?, 5) Capacity Building, 6) Informatics and eScience. The main functions of CAWSES-II are to help coordinate international activities in observations, modeling, and applications crucial to achieving this understanding, to involve scientists in both developed and developing countries, and to provide educational opportunities for students of all levels. The symposium offers keynotes/lectures that will be interesting for all participants every morning and more specific sessions of presentations in the afternoon. We welcome all those who are involved and/or interested in

CAWSES-II to Nagoya in the autumn when we will have the pleasure of being surrounded by beautiful colorful leaves of this season.

Website:

http://www.cawses.org/CAWSES/leaflet_CAWSES-II_120229.pdf

European Space Weather Week in Belgium

Start : 2013-11-18 - End : 2013-11-22

The 10th Edition of the European Space Weather Week will take place on 18-22nd November 2013 in Belgium. The venue will be confirmed early next year, but mark your calendars now for the 10th Anniversary of this growing European event.

The ESWW will again adopt the central aim of bringing together the diverse groups in Europe working on different aspects of Space Weather . This includes but isn't limited to the scientific community, the engineering community, applications developers, service providers and service end users. The meeting organisation will again be coordinated by the Belgian Solar-Terrestrial Centre of Excellence (STCE), ESA and the Space Weather Working Team. The local organisation will be done by the STCE.

Website: not yet available

40th COSPAR Scientific Assembly in Moscow, Russia

Start : 2014-08-02 - End : 2014-08-10

The 40th COSPAR Scientific Assembly will be held in Moscow, Russia from 2 - 10 August 2014. This Assembly is open to all bona fide scientists.

Website:

<http://www.cospar-assembly.org/>