STCE Newsletter

2 Apr 2012 - 8 Apr 2012

Published by the STCE - this issue : 13 Apr 2012. Available online at http://www.stce.be/newsletter/ .

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. STCE annual meeting, Alfven waves and turbulence in solar-terrestrial plasmas

Somewhere in the second part of May 2012, an STCE workshop in the framework of the annual meeting will be organised. The subject of this one is: Alfven waves and turbulence in solar-terrestrial plasmas. The workshop will deal with talks about observations, models and theory of all kinds of waves and turbulence and their signatures in the solar-terrestrial interaction chain. The chain passes from the solar atmosphere, over the solar wind, through the terrestrial magnetosphere, up to the ionosphere.

Contact

Yuriy Voitenko (BIRA-IASB) and Andrea Verdini (ROB).
More information will follow.

2. Review of solar activity (2 Apr 2012 - 8 Apr 2012)

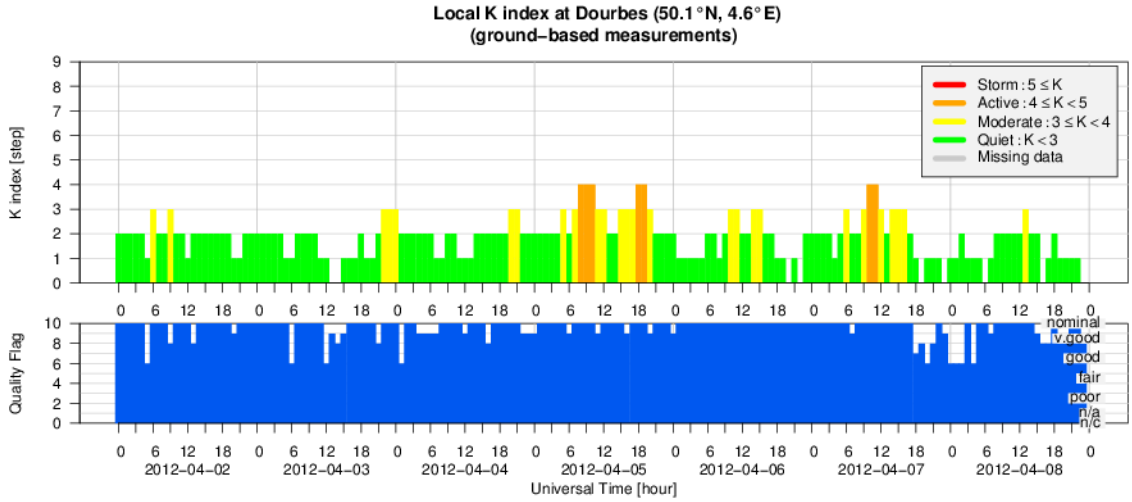
Solar conditions were quiet for most of the week. The GOES X-ray flux was at B-level most of the time. A C1.2 flare occurred on April 4th in NOAA AR 11450 (Catania 89) with peak time 16:27 UT. The same region released more C-flares in the following day (April 5th): a C3.1 flare with peak time 16:24 UT, a C1.5 flare peaking at 21:10 UT and a C1.1 flare at 00:00 UT. In addition, there was a C2.4 flare from NOAA AR 11452 with peak at 17:08 UT on April 7.

A slow CME was observed in the STEREO/COR2 data around 01:24 UT (STEREO-A) in the morning of April 2nd. This CME was directed northwards and did not affect the Earth. At 21:36 UT on April 5, CACTus detected a halo CME in SOHO/LASCO data with an estimated speed of 613 km/s. This eruption was associated with the C1.5 flare and a type II radio burst with a shock speed of 360 km/s. The CME was directed mostly north-westward. Two more CME's are visible in the LASCO images of April 5: an eruption to the northwest at 17:12 UT (associated with the C3.1 flare), which was overtaken by the previously mentioned CME, and a CME towards the northeast at 19:36 UT which turned out to be a back-sided event. Also a filament eruption was observed on the northern solar limb which started rising slowly from 10:30 UT onwards. On April 7, a long duration B-class flare from NOAA AR 1451 was related to a filament eruption that led to a CME, the bulk of the CME was directed to the west but there are small chances of a glancing blow encounter with the Earth.

3. Review of geomagnetic activity (2 Apr 2012 - 8 Apr 2012)

Geomagnetic conditions were at quiet levels for most of the week. The ACE satellite data showed the arrival of a magnetic structure around 19:30 UT on April 4th. A jump in the magnetic field measurements was observed. The southward component of the magnetic field turned strongly negative (around -9nT) and remained at this level for almost 12h. Fortunately, the solar wind speed was very low at that moment (around 320 km/s). Therefore the geomagnetic consequences were limited, but both Kp and the local K-index in Dourbes reached active levels (K=4) on April 5th.

4. Geomagnetic Observations at Dourbes (2 Apr 2012 - 8 Apr 2012)



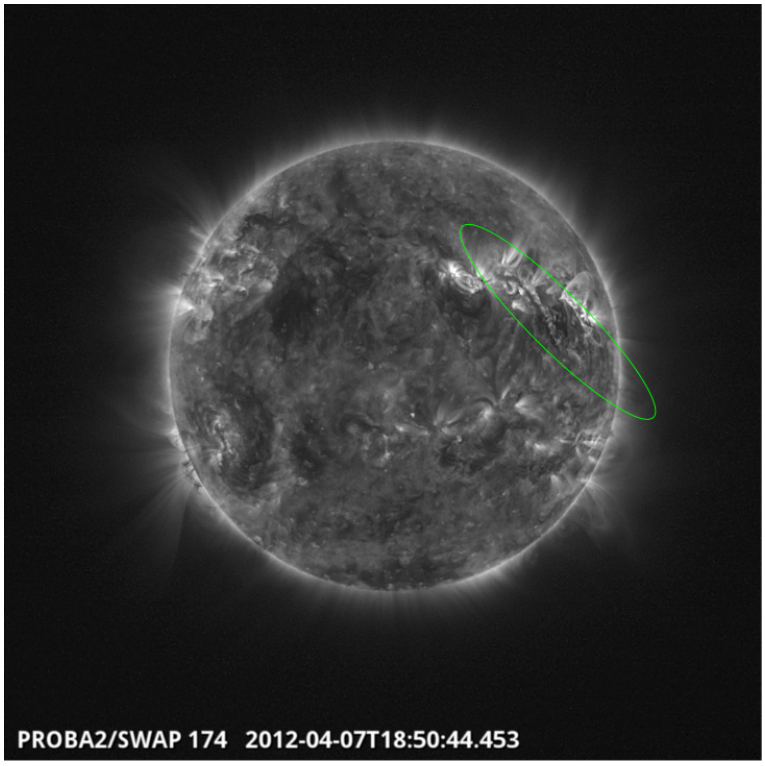
5. PROBA2 Observations (2 Apr 2012 - 8 Apr 2012)

The Suns activity was very low to low. No M or X flares occurred.
However, interesting events were recorded by SWAP (and/or LYRA) and some of them are shown below:

Eruption, North quadrant, 07/04 at 18:50, image taken from SWAP difference movie http://proba2.oma.be/swap/data/mpg/movies/201200407_swap_diff.mp4

Same as previous, normal image: Eruption, North quadrant, 07/04 at 18:50

http://proba2.oma.be/swap/data/mpg/movies/201200407_swap_movie.mp4



Eruption on SW limb, 08/04 at 01:01UT, image taken from SWAP difference movie
http://proba2.oma.be/swap/data/mpg/movies/201200408_swap_diff.mp4

Eruption on W limb, 08/04 at 03:04UT, image taken from SWAP difference movie
http://proba2.oma.be/swap/data/mpg/movies/201200408_swap_diff.mp4

6. Future Events

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

Spectroscopy of the Dynamic Sun

Start : 2012-04-18 - End : 2012-04-20
We are hosting a conference celebrating the careers of Prof. George Doschek from NRL and Prof. Tetsuya Watanabe from NAOJ focussing on the topic of Spectroscopy of the Dynamic Sun.
George Doschek has played a major part in space solar spectroscopy for many decades. Following a key role in exploiting Skylab data, he made huge contributions to the design and build of instruments on board the P78-1, Yohkoh and Hinode missions, being US PI for the Hinode EIS. His knowledge of spectroscopy is recognized and respected internationally and he has published very many papers on high temperature solar plasmas.
Tetsuya Watanabe is a leading spectroscopist in Japan. Following work with stellar atmospheres, he has been involved from the start of Japanese space solar physics with significant roles in the Bragg spectrometers the Tansei 4, Hinotori and Yohkoh missions. He is Japanese PI for Hinode EIS. He has published extensively on solar X-ray and EUV spectra.
This conference will focus on recent results using spectroscopy to probe fundamental questions in solar physics.
Website:
http://msslxr.mssl.ucl.ac.uk:8080/SolarB/spectrosun/index.jsp

EGU General Assembly in Vienna, Austria

Start : 2012-04-22 - End : 2012-04-27

The EGU General Assembly 2012 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 the EGU appeals to provide a forum to present their work and discuss their ideas with experts in all fields of geosciences. The EGU is looking forward to cordially welcome you in Vienna.
Space weather related sessions:
Impact of solar and geomagnetic variabilities on the Earth's lower,middle and upper atmospheres (Thierry Dudok de Wit, Jean Lilensten, F.-J. LÃ¼bken, M. Kaufmann and P. Preusse)
This interdisciplinary session focuses on the multiple impacts of solar activity on climate variability. The session will address both forcing mechanisms such as solar spectral irradiance, geomagnetic perturbations and galactic cosmic rays, and the response of the upper, middle and lower atmosphere. Special attention will be payed to the solar flares and geomagnetic storms as well as to the role of the long-term trends of the solar activity, in particular, in global climate changes and modern global warming. Papers involving the physical processes in the ionosphere and stratosphere will be welcome in the first place. The objective is to go beyond correlation analyses and gain a better quantitative understanding of the different contributions of solar variability to the terrestrial environment.
More information:
http://meetingorganizer.copernicus.org/EGU2012/provisionalprogramme/CL
Space Weather and its Effects on Terrestrial and Geo -Space Environments: Science and Applications (Viviane Pierrard (BIRA-IASB, Belgium), Hanna Rothkaehl (Space Research Centre PAS, Poland), Norma Crosby (BIRA-IASB, Belgium)
This session gathers together scientists with expertise in various fields of solar-terrestrial physics that deal with the effects of space phenomena on different levels of geo -space. Effects range from those observed on spacecraft related activities all the way down to Earth, including technological systems, human health and the Earth's climate. We welcome contributions (theoretical and observational) as well as applied (effects on terrestrial and geo -space environments), on all aspects of space weather . Contributions related to the ESA Space Situational Awareness (SSA) programme, or the EU FP7 programme, are very welcome. We look forward to a dynamic and interdisciplinary session.
Website:
http://meetings.copernicus.org/egu2012/

NOAA Space Weather Workshop in Boulder (USA)

Start : 2012-04-24 - End : 2012-04-27
Space Weather Workshop is an annual conference that brings industry, academia, and government agencies together in a lively dialog about space weather . What began in 1996 as a conference for the space weather user community, Space Weather Workshop has evolved into the Nationâ€™s leading conference on all issues relating to space weather .
The conference addresses the remarkably diverse impacts of space weather on todayâ€™s technology. The program highlights space weather impacts in several areas, including communications, navigations, spacecraft operations, aviation, and electric power. The presentations and discussions at the Space Weather Workshop also focus on identifying the highest priority needs for operational services that can guide future research and identifying new high-value capabilities that can be transitioned into operations. The conference fosters communication among researchers, space weather service providers, and users of space weather services.
Researchers have the opportunity to discuss relevant research in many areas of the space environment. Recent progress in large-scale modeling efforts will be featured; while new developments in Sun-to-Earth coupled modeling systems will also be a highlight.
Website:
http://www.swpc.noaa.gov/sww/

26th NSO Workshop: 'Solar Origins of Space Weather and Space Climate: Connecting the Interior to the Corona'

Start : 2012-04-30 - End : 2012-05-04

As the impact of space weather and climate on daily life is becoming more important, it is timely to discuss the latest reseach on the solar origin of these phenomena. Recent advances in helioseismology have demonstrated that subsurface dynamics are closely associated with aspects of solar activity from the long-term timing of the solar cycle to the short-term eruption of solar flares. The advent of synoptic vector magnetic field measurements is opening up a new path for research on active regions, flares and CME 's. Coronal magnetic field measurements should become available in the next 5-10 years, supplying another physical constrain on space weather events.
Website:
http://www.nso.edu/general/workshops/2012/

Advances on space radiation and plasma environment monitoring, data analysis and flight opportunities workshop in Noordwijk, NL

Start : 2012-05-09 - End : 2012-05-11
The workshop on 'Advances on Space Radiation and Plasma Environment Monitoring, Data Analysis Methods and Flight Opportunities Workshop' is the forth of a series of workshops proposed under the auspices of the Space Environments and Effects Network of Technical Competences established to further cooperation in Europe.
The number of flying or ready to fly European radiation and plasma instruments has increased significantly since the last SEENoTC workshop on the subject in 2008 and a round-table at CNES in 2009. Research programmes have also made good progresses in investigating innovative technologies and new concepts designs which will allow a substantial reduction of mass, power and data rate budgets compared to traditional instrumentation, whilst providing equivalent or higher detection efficiency. With many future missions in Navigation, Telecommunications, Exploration, Science, GMES domains flying in severe radiation environments and carrying highly sensitive components and systems, the need for such radiation instrumentation is increasing. Accurate measurements of the Space Environment plays also a crucial role in improvement of radiation enviroment models and the development of the space weather services required by the Space Situational Awareness programme.
The intention of this workshop is to provide a venue for discussing the latest developments on space plasma and radiation environments and effects instrumentation, to examine possible flight opportunities for such instruments, and to establish the necessary technical and management steps necessary to ensure collaboration on future data analyses, databases, data sharing, and lessons learned from flight experience. It will also allow further discussion and capture of explicit experiment needs and further the harmonization of cooperation on instrument development, flight plans and data exploitation.
Website:
http://www.congrexprojects.com/12C16

Annular solar eclipse

Start : 2012-05-20 - End : 2012-05-20
For more information:
http://eclipse.gsfc.nasa.gov/SEgoogle/SEgoogle2001.html

HELAS-5: The Modern Era of Helio- and Asteroseismology

Start : 2012-05-20 - End : 2012-05-25
Helioseismology and asteroseismology are the only means to investigate the interior of the Sun and stars. They are crucial for understanding the structure and evolution of stars, which produce all chemical elements in the universe heavier than helium, and which host and influence planets which may carry life. Understanding the physics of the Sun's interior is essential for understanding the solar dynamo and consequently for predicting solar magnetic activity, which has a severe impact on the operation of space missions. Understanding the interior of the stars is essential for understanding those astronomical objects that host and influence planets. With the suite of the latest instruments and missions, e.g. BiSON, GONG, SOHO , SDO, Hinode and Picard for solar exploration and MOST, CoRoT, Kepler, BRITE, SONG for stellar and exoplanetary research, the precision on the seismically determined quantities, e.g. flows in the solar interior or the ages and radii of stars will be greatly improved. This will allow creating new

knowledge in solar physics and astrophysics and therefore makes the proposed conference particularly timely.
Website:
http://www.esf.org/index.php?id=9140

Workshop on Coronal Magnetism at Boulder, Colorado (USA)

Start : 2012-05-21 - End : 2012-05-23
The purpose of this workshop is to foster the development of tools to interpret current and future measurements of coronal magnetic fields in order to improve our understanding of the Sun and the sources of Space Weather . This is motivated by the anticipated rapid growth over the next decade in our remote sensing capabilities of the coronal plasma . These new capabilities can only be exploited with improvements in our ability to model the polarized radiative transfer through the coronal plasma and by coupling information on the coronal magnetic field and plasma conditions with models extending to the near Earth environment.
This workshop will include a wide variety of subjects including, but not limited to, instrumentation, the interpretation of polarimetric signals in EUV and UV emission lines, techniques to mitigate the effects of line-of-sight integration effects of the optically thin corona such as tomographic inversions and forward modeling, models of the polarized radiative transfer at radio wavelengths, extrapolation and MHD modeling of coronal magnetic fields, as well as discussions on how to move forward with coupling these inferences of the coronal plasma with models of heliospheric structure and Space Weather prediction.
Website:
http://www.hao.ucar.edu/CoronalMagnetismWorkshop/index.php

Heliophysics Summer School in Boulder, Colorado

Start : 2012-05-31 - End : 2012-06-07
The 2012 Heliophysics Summer School will focus on the science underlying current and future heliophysical missions, including but not limited to MMS, Themis , RBSP, IRIS, SDO, and Solar Probe Plus. After providing students with broad overviews of the solar atmosphere, the solar wind , the Earthâ €™s magnetosphere , and ionosphere , the course will cover the basic concepts and unanswered questions pertaining to magnetic reconnection, shocks, plasma instabilities, turbulence, and heating, and the manner in which these concepts and questions affect our understanding of phenomena such as substorms, radiation belt and chromospheric dynamics, solar wind turbulence and particle heating, and heliospheric shocks.
Link:
http://www.vsp.ucar.edu/Heliophysics/summer-about-over.shtml

Los Alamos Space Weather Summer School

Start : 2012-06-04 - End : 2012-07-27
The Los Alamos National Laboratory established a summer school in 2011 dedicated to space weather , space science and applications. Every year we solicit applications for the Los Alamos Space Weather Summer School. This summer school is sponsored by IGPP (Institute of Geophysics and Planetary Physics) and PADSTE (Principal Associate Directorate for Science, Technology and Engineering), and PADGS (Principal Associate Directorate for Global Security) and has been established to bring together top space science students with internationally recognized researchers at LANL.
Website:
http://www.swx-school.lanl.gov/

First European School on: Fundamental processes in Space Weather in Spineto, Italy

Start : 2012-06-04 - End : 2012-06-09
The Space Weather Integrated Forecasting Framework network (http://www.swiff.eu) organizes in June 2012 the â€œFirst European School on Fundamental processes in space weather , a challenge in numerical modelingâ€. The School will focus on the theoretical study of Space plasmas, in particular on

those systems where a continuous energy injection flow leads to a self-consistent coupling of the large scale, low frequency motions with the small scale, high frequency fluctuations including kinetic effects. Progress in this field heavily relies on numerical simulations that, as a matter of fact, are nowadays more similar to laboratory experiments than to theoretical exercises. This is true in terms of planning efforts in the preparatory phase, of manpower required, of data analysis and cost. The understanding of these processes represents a fundamental step for the future of Space Weather models.
Website:
http://www.df.unipi.it/~califano/SWIFF_School/
EU_School_on_Space_Weather_fundamental_plasma_processes.html

Space Weather Effects on Humans: in Space and on Earth in Moscow, Russia

Start : 2012-06-04 - End : 2012-06-08
During the last thirty years there has been steady progress in our understanding of the influence that space weather has on the state of human health both in Space and at Earth. This development is mainly based on research conducted on humans onboard space stations and spacecrafts, as well as on ground based observations and experimental studies simulating conditions in space. This interdisciplinary field of research requires a wide exchange of expertise in various topics. Only with a global approach it will be possible to establish a mutual understanding, in regard to defining the current state of this research problem as well as identifying what should be pursued in future research activities.
Website:
http://swh2012.cosmos.ru/

Remote Sensing of the Inner Heliosphere 2011 in Aberystwyth, UK

Start : 2012-06-06 - End : 2012-06-10
We announce the 'Second Remote Sensing of the Inner Heliosphere Workshop' to be hosted by Aberystwyth University and held in Aberystwyth, Wales, UK, 06-10 June 2011. The workshop aims to gather experts from the various fields of remote-sensing observations of the inner heliosphere , including white-light, EUV, and radio observation, together with modellers in order to tackle key outstanding science issues, establish closer working relations, and devise the best ways to move the field forward. In addition, the science learned from remote-sensing observations is key to improving our capabilities of space weather forecasting. The workshop also aims to look at ways in which we can more easily and efficiently share and access the various types of data between individual groups and sub-communities, ways in which we model the inner heliosphere looking at the advantages and disadvantages of the available modelling, updates on present and future remote-sensing capabilities - including those on the STEREO /SDO/Solar Orbiter/Solar Probe+ Missions, and progress on use of the LOw Frequency ARray (LOFAR) and Murchison Widefield Array (MWA) radio arrays - pathfinders for the Square Kilometre Array (SKA) - linking remote-sensing observations of the inner heliosphere with those closer-in to the Sun as well as with in-situ measurements, and investigating further the ways in which these data sets all complement each other and are necessary to gain knowledge and understanding of the fundamental physical processes that occur within the inner heliosphere .
Website:
http://heliosphere2011.dph.aber.ac.uk/

Solar Wind 13

Start : 2012-06-17 - End : 2012-06-22
The Thirteenth International Solar Wind Conference, organized by the University of Alabama in Huntsville's Center of Space Plasma and Aeronomic Research (CSPAR) and the the University of California, Berkeley's Space Sciences Laboratory, will take place at Sheraton Keauhou Resort on Big Island, Hawaii, USA, from 17 to 22 June 2012. Please note that scientific sessions will start on Monday 18 June.
The conference will conform to the traditional solar wind themes, addressing the current state of knowledge in the relevant fields of solar and heliospheric physics. In particular, the conference will focus on the physics ofthe corona, the origin and acceleration of the solar wind , its dynamical

interactions throughout the heliosphere and the interstellar medium and its boundaries. The program will be composed of both invited lectures and contributed talks and posters.
Website: http://www.sw13.org/

SHINE Conference 2012 in Wailea Maui, Hawaii

Start : 2012-06-25 - End : 2012-06-29
SHINE stands for Solar Heliospheric and INterplanetary Environment. It is an affiliation of researchers within the solar, interplanetary, and heliospheric communities, dedicated to promoting an enhanced understanding of the processes by which energy in the form of magnetic fields and particles are produced by the Sun and/or accelerated in interplanetary space and on the mechanisms by which these fields and particles are transported to the Earth through the inner heliosphere .
SHINE research focuses in particular upon the connection between events and phenomena on the Sun and their relation to solar wind structures in the inner heliosphere . The goal of SHINE activities is to enrich and strengthen both physical understanding and predictive capabilities for these phenomena.
Website:
http://shinecon.org/Current%20Meeting.htm

Toulouse Space Show (France)

Start : 2012-06-25 - End : 2012-06-28
Toulouse will host the most important players in the global aerospace industry, particularly those focusing on space applications. It will provide the opportunity to meet with more than 1000 experts, service providers, clients, users, researchers and students from all over the world.
Website:
http://www.toulousespaceshow.eu/tss12/en/

European Week of Astronomy and Space Science in Rome, Italy

Start : 2012-07-01 - End : 2012-07-06
We have the pleasure to invite you in July 2012 to attend the European Week of Astronomy and Space Science, the now classical Ewass meeting, formely known as Jenam. In 2012, the meeting will take place in Rome, Italy, at the Pontificia UniversitÃ Lateranense.
Website:
http://www.ifsi-roma.inaf.it/ewass2012/

International Summer School 'Solar Astrophysics: Modern trends and techniques' in Bogota, Colombia

Start : 2012-07-03 - End : 2012-07-19
The Sun is our closest and most well studied celestial object. From the beginnings of human civilizations, the Sun has played a major role in their development, and in the rituals and customs that can still be perceived in the modern world. Unprecedented advances and new missions have revealed the real complexity of the Sun. New missions like SDO, SolarProbe Plus and other satellite missions (RHESSI, SOHO , TRACE , YOHKOH , etc.) provide information that may help to unveil the secrets of our star . The Observatorio Astronomico Nacional and the Universidal Nacional de Colombia organises an International Summer School in Solar Physics, with the purpose of promoting the solar research in Colombia and help in the personal development of postgraduate students and young postdocs in this area from other countries.
The International Summer School is intended to provide an advanced training in the field of solar physics to last year ungraduate students who are willing to write their final work in any area of solar physics, postgraduate students, and young post-docs having already some initial work in the fields of solar physics.
Website:
http://www.observatorio.unal.edu.co/eventos/solarschool/

International Summer School 'Solar Astrophysics: Modern trends and techniques' in Bogota, Colombia

Start : 2012-07-03 - End : 2012-07-19

BUKS2012 in Fodele Beach, Crete, Greece

Start : 2012-07-04 - End : 2012-07-07
The Sun is the most important astronomical object for humankind with solar activity having a direct impact on Earth. From a fundamental point of view the Sun offers an exceptional physics laboratory where the interactions of the astrophysical plasma and the magnetic field can be studied in detail.
The BUKS workshops on MHD waves and oscillations of the solar atmosphere is organised by the following research groups from Belgium, Spain and the UK:
* The Centre for Plasma Astrophysics, Katholieke Universiteit Leuven, Belgium
* The Solar Physics & Space Plasma Research Centre, University of Sheffield, UK
* The Solar & Magnetospheric Theory Group, University of St Andrews, UK
* The Centre for Fusion, Space & Astrophysics, University of Warwick, UK
* The Solar Physics Group, Universitat de les Illes Balears, Spain
* The Astrophysics Research Centre, Queen's University Belfast, UK
BUKS2012 will also honour the contributions of Prof Marcel Goossens to the field of MHD waves and offer an opportunity to celebrate his 65th birthday.
Website:
https://habu.pst.qub.ac.uk/groups/buks2012/

23rd NASA Space Radiation Investigatorsâ€™ Workshop in Durham, North Carolina (USA)

Start : 2012-07-08 - End : 2012-07-11
The 23rd Annual NASA Space Radiation Investigatorsâ€™ Workshop will be held July 8â€“12, 2012, at the Washington Duke Inn, Durham, North Carolina. The purpose of this workshop is to provide an opportunity for active researchers in the NASA Space Radiation Program to share the results of their work and to explore new directions for research that may benefit the NASA program. The workshop format will include plenary sessions, poster sessions, and a poster contest to recognize and honor student investigators. In addition, there will be special sessions on space physics and technology allowing opportunities for a comprehensive discussion on NASAâ€™s overall space radiation protection goals.
Principal investigators receiving NASA funds (including those from the NASA /DOE joint program and the NSBRI) are required to attend; principal investigators funded by the Department of Energy are strongly encouraged to attend. Although attendance at the workshop is by invitation only, other scientists with a legitimate interest in space radiation research are also welcome. If you wish to attend, please send your requests directly to . Requests should be accompanied by an explanation of your relationship to the Space Radiation Program and the type of contribution you wish to make.
Website:
http://www.dsls.usra.edu/meetings/radiation2012/

ESOF 2012 in Dublin, Ireland

Start : 2012-07-11 - End : 2012-07-15
From 11th-15th of July 2012 international researchers, policy makers, business leaders and global media will gather in the Convention Centre in Dublin, Ireland to take part in the Euroscience Open Forum (ESOF), 2012. A science conference like no other, ESOF 2012 is unique in representing the largest convergence of the Sciences, Humanities and Culture in Europe in 2012. Some of the keynote speakers at ESOF 2012 will include Craig Venter, Rolf-Dieter Heuer, Charles Bolden, Mary Robinson, and Bob Geldof.
Website: http://www.esof2012.org/

39th COSPAR Scientific Assembly

Start : 2012-07-14 - End : 2012-07-22
The 39th COSPAR Scientific Assembly will be held at the Global Education Centre, 2 Infosys Training Centre Mysore, Karnataka India from 14 - 22 July 2012. This Assembly is open to all bona fide scientists.
Website:
http://www.cospar-assembly.org/

CISM Summer School in Boulder (USA)

Start : 2012-07-16 - End : 2012-07-27
The CISM Space Weather Summer School is a 2-week intensive program targeted to first-year graduate students but also attended by undergraduates and space weather professionals. The daily schedule includes morning lectures, followed by afternoon laboratory sessions where students further explore the day's topics using CISM model simulations, observational data, and sophisticated visualization tools. CISM is making the laboratory materials publicly available for use by others, for example to supplement lecture courses or for student independent study. The deadline for applications is May 1.
Website:
http://www.bu.edu/cism/SummerSchool/overview.html

IGS Workshop 2012 in Olsztyn, Poland

Start : 2012-07-23 - End : 2012-07-27
The Department of Astronomy and Geodynamics of the University of Warmia and Mazury (UWM) is hosting the 2012 IGS Workshop.
This workshop will be composed or plenary sessions with invited oral presentations, and afternoon sessions composed of poster sessions and IGS Working Group splinter meetings. For this workshop we are soliciting abstracts for the poster sessions.
The key dates for this workshop are as follows:
* Poster Abstract Submissions: March 25 - April 30, 2012.
* Registration: March 25- May 28, 2012.
* Hotel Reservations: March 25- May 28, 2012.
* Workshop: July 23 - July 27, 2012.
Website:
http://www.uwm.edu.pl/kaig/igs_workshop_2012/

International Radiation Symposium in Berlin (Germany)

Start : 2012-08-06 - End : 2012-08-10
The IRC's International Radiation Symposium 2012 provides a forum for the scientific community to exchange recent results and evolving ideas relevant to many areas of atmospheric radiation. Quadrennially convened, the IRS assembles a global network of scientists and students engaged in studies pertaining to the Earth-atmosphere-Sun system, and encourages international cooperation in radiation research crucial to understanding and predicting Earth's dynamic climate and habitability. The IRC invites you to Berlin and welcomes your participation in this endeavor.
Website: http://irs2012.org/

Asia Oceania Geosciences Society (AOGS) Assembly in Singapore

Start : 2012-08-13 - End : 2012-08-17
An international body established since 2003, the Asia Oceania Geosciences Society (AOGS) aims to promote geosciences and advance its applications for the benefit of humanity in Asia and Oceania.
Sessions:
* Atmospheric Sciences
* Biogeosciences
* Hydrological Sciences
* Ocean Sciences
* Planetary Sciences

* Solar & Terrestrial Sciences
* Solid Earth Sciences
* Interdisciplinary Working Groups
Website:
http://www.asiaoceania.org/aogs2012/public.asp?page=home.htm

Solar Information Processing Workshop (SIPWork VI), at Montana State University, Bozeman

Start : 2012-08-13 - End : 2012-08-16
You will have a noticed the slight re-branding of these workshops from â€˜Imageâ€™ to â€˜Informationâ€™ processing. We think it is time to expand the attention of these workshops to discuss more generally how information about the Sun can be derived, stored, shared, transformed and analyzed using appropriate techniques from many other disciplines. We will still be covering image processing and computer vision techniques applied to solar physics, but we will also be including other topics such as machine learning, data mining and new computing strategies. The re-branding simply acknowledges and makes explicit what the community has been doing to determine the physics of the Sun.
Link: http://www.sipwork.org/

Hinode-6 in St. Andrews, UK

Start : 2012-08-14 - End : 2012-08-17
There will be 7 sessions, with 2 invited speakers per session. The following speakers have been invited to Hinode-6:
Website:
http://www-solar.mcs.st-and.ac.uk/~hinode6/Hinode-6/Welcome.html

XXVIII IAU General Assembly in Beijing, China

Start : 2012-08-20 - End : 2012-08-31
In August 2012 China will for the first time host the General Assembly of the International Astronomical Union in Beijing. This triennial gathering of astronomers from around the world to discuss and debate the most recent discoveries about the universe is an important part of the vitality of our science. Astrophysics remains one of the most exciting areas of human endeavor, and the venue of the Beijing GA will be equally impressive: the new China National Convention Center that is housed in the Olympic Park in a beautiful, spacious building and area that is full of amenities for conference participants and visitors.
The contributions of Chinese astronomy to human knowledge and our understanding of the cosmos have been of historical significance, from the earliest to modern times. GA participants will have an opportunity to experience the wide range of astronomical activities now taking place in China that include new projects, facilities, and institutes. They will also report on, and hear, the latest research results from every field of astronomy. An exciting scientific programme is being developed that will hold the interest of everyone. I am pleased to welcome all Union members and invited guests to join us in Beijing for what will be a memorable General Assembly.
Website:
http://www.astronomy2012.org

International Meteor Conference in La Palma, Spain

Start : 2012-09-20 - End : 2012-09-23
Every year, the International Meteor Organization (IMO) organizes the International Meteor Conference (IMC). This conference deals with all aspects of meteor observation as well as the underlying physics and is aimed at both amateurs and professionals.
The International Meteor Organization (IMO) will hold the 31st annual International Meteor Conference (IMC) on La Palma, Canary Islands, Spain, from 20 till 23 September, 2012. The conference will be organized by the Astro Travels agency in collaboration with the Cabildo of La Palma island authority which will sponsor this event.
Website:

http://www.imo.net/imc2012/

RADECS 2012 in Biarritz, France

Start : 2012-09-24 - End : 2012-09-28
The 21st European Conference on RADIATION AND ITS EFFECTS ON COMPONENTS AND SYSTEMS will be held in Biarritz, France, on September 24-28, 2012.
The aim of RADECS conferences is to provide an annual European forum for the presentation and discussion of the latest advances in the field of radiation effects on electronic and photonic materials, devices, circuits, sensors, and systems. The scope of the conference encompasses technological processes and design techniques for producing radiation tolerant systems for space, aeronautical or terrestrial applications, as well as relevant methodologies for their characterization and qualification. The conference features a technical program, an Industrial Exhibit, and one day meeting on ground effects offered on September 24 (RADGROUND). The technical program includes oral and postersessions.
The areas of interest for contributions to be submitted to RADECS 2012 include, but are not limited to:
* Basic mechanisms of radiation effects in electronic and optical materials
* Space, atmospheric and terrestrial environments
* Radiation effects on electronic and photonic devices, circuits and systems
* Radiation effects on sensors and emerging devices
* Technology and design hardening
* Radiation hardness assurance
* Irradiation facilities and testing
Website: http://radecs2012.org

63rd International Astronautical Congress in Naples, Italy

Start : 2012-10-01 - End : 2012-10-05
At the forthcoming 63rd International Astronautical Congress in Naples a special session on the theme 'Effects of Space Weather on GEO Satellites' will be held as part of the 25th Symposium on Space Policy, Regulations and Economics.
This session will discuss case histories and mechanisms of effects of space weather on GEO satellites, models for prediction, and mitigation approaches. We would like to invite you to consider submitting abstracts for this session.
The call for papers can be found at The deadline for abstract submission is 29 February 2012.
http://www.iafastro.org/docs/2012/iac/IAC2012_CallForPapers.
Website: http://www.iac2012.org/

Space Weather and Challenges for Modern Society in Oslo, Norway

Start : 2012-10-22 - End : 2012-10-24
2012 â€“ 2013 is expected to be years with high solar activity. This can trigger larger solar storms which can generate geomagnetic induced currents (GIC) on the earth. GIC can affect the normal operation of specific industrial operations and critical infrastructure (e.g power grids, telecom, navigation systems, etc).
During space weather events, like solar storms, electric currents in the magnetosphere and ionosphere experience large variations, which manifest also in the earth's magnetic field. These variations induce currents (GIC) in conductors operated on the surface of the earth. Electric transmission grids and buried pipelines are common examples of such conductor systems. GIC can cause problems, such as increased corrosion of pipeline steel and may disturb and possible damaged high-voltage power transformers and it can also have damaging effects on communication systems, navigation systems and oil and gas operations.
Vulnerable industries are the oil and gas industry, railways, telecommunication industry, navigation industry and not at least the society, which is very vulnerable concerning short or long term interruption of critical infrastructure.

The conference will focus on increasing the general knowledge of solar storms, space weather and GIC and the possible consequences for different industries and critical infrastructure, and look into reasonable means of protection, and consider possible early warning solutions.
Website:
http://www.tiems.info/about-tiems/oslo-conference-2012.html

Ninth European Space Weather Week in Brussels, Belgium

Start : 2012-11-05 - End : 2012-11-09
We are pleased to announce that the Ninth European Space Weather Week will take place at the AcadÃ©mie Royale de Belgique, Brussels, Belgium between 5 and 9 November 2012.
This meeting is being jointly organised by the Solar-Terrestrial Centre of Excellence (STCE), ESA , the SWWT and the COST ES0803 communities. The local organisation is done by the STCE. This event will continue to build on the advances made during the first eight European Space Weather Weeks held between 2004 and 2011.
Website:
http://www.sidc.be/esww9/

International Symposium on Solar-Terrestrial Physics in Pune, India

Start : 2012-11-06 - End : 2012-11-09
The International Symposium on Solar-Terrestrial Physics will be held during November 6 - 9, 2012 at the Indian Institute of Science, Education and Research, Pune, India. This meeting under the aegis of the SCOSTEP is expected to draw leading scientists from around the world in the increasingly important, interdisciplinary fields of Solar activity and its impact on geospace and life on the Earth. With major observational solar facilities being planned in India, this meeting is especially pertinent in the Indian context.
The meeting is expected to involve professional scientists as well as graduate students, and will have a mixture of invited and contributed talks and posters. There will also be a one-day tutorial for the benefit of young people beginning work in the field of solar-terrestrial physics.
Website:
http://www.iiserpune.ac.in/~isstp2012/

Eclipse on the Coral Sea: Cycle 24 Ascending in Palm Cove, Queensland (Australia)

Start : 2012-11-12 - End : 2012-11-16
As we emerge from one of the deepest and longest solar minima on record, with a new and powerful eye on the Sun -SDO- we invite all those with an interest is solar activity to gather in beautiful Palm Cove, Australia to review and assess our current knowledge and understanding of our magnetic star , and to experience the awe and wonder of a total solar eclipse on November 14, 2012.
Website:
http://moca.monash.edu/eclipse/

Total solar eclipse

Start : 2012-11-13 - End : 2012-11-13
For more information:
http://eclipse.gsfc.nasa.gov/OH/OH2012.html#SE2012Nov13T

Solar Physics with Radio Observations in Aichi, Japan

Start : 2012-11-20 - End : 2012-11-23
Nobeyama Radioheliograph (NoRH) has been observing the Sun since 1992. This year is the 20th year of science operation. Instruments are still in good shape and producing images of the Sun every day with the same quality as the beginning. Due to the nature of the instrument and long and uniform observations, data can be used for wide variety of solar physics and also for solar terrestrial physics. To mark the 20 years of operation, we will organize a symposium to summarize what has been done with NoRH and to

discuss what we should do in the future. Papers to be presented in the meeting will be mainly concerned with the results from NoRH and future plans.
Website:
http://st4a.stelab.nagoya-u.ac.jp/SPRO2012/

Tracing the Connections in Solar Eruptive Events in Petaluma, CA, USA

Start : 2012-11-30 - End : 2012-12-05
The overarching objective of the conference is to examine the connections amongst the phenomena that lead to solar eruptive events. The current state of themes includes:
* Measuring the Coronal Magnetic Field;
* Connections to, and Reactions of, the Large-Scale Corona;
* Large-scale Magnetic Connectivity of Active Regions;
* Transfer of Energy to, and Storage of Energy in, the Corona;
* The High-Energy Particle - Flare - CME connection.
Working groups will address topics such as:
* Energy Transfer throughout a Solar Eruptive Event;
* Global Energetics of an Ensemble of Events;
* Coronal Influences to the Lower Atmosphere;
* CME Initiation and Type II Bursts;
* The Release of Energetic Particles in the Low Corona;
* Flows vs. Waves;
* Microflares/Nanoflares.
Website:
http://hessi.ssl.berkeley.edu/petaluma/index.shtml

Earth-Sun System Exploration 5 in Kona, Hawai'i USA

Start : 2013-01-13 - End : 2013-01-19
Information coming soon!
Website:
http://sd-www.jhuapl.edu/Aurora/ESSE/index.html

Chapman Conference on Fundamental Properties and Processes of Magnetotails in Reykjavik, Iceland

Start : 2013-03-10 - End : 2013-03-15
Spacecraft observations have established that all magnetized planets in our solar system interact strongly with the solar wind and possess well-developed magnetotails. Magnetotails are the site for many dynamic processes critical to the circulation of mass, energy and magnetic flux. The great differences in solar wind conditions, planetary rotation rates, ionospheric conductivity, and physical dimensions from Mercuryâ€™s small magnetosphere to the giant magnetospheres of Jupiter and Saturn provide an outstanding opportunity to extend our understanding of the influence of these factors. Therefore, this Chapman conference will provide a forum in which various communities can come together and discuss recent achievements of observational, theoretical, and modeling studies with the objective to develop a deeper understanding of fundamental properties and processes of planetary magnetotails through a comparative examination.

Annular solar eclipse

Start : 2013-05-10 - End : 2013-05-10
For more information:
http://eclipse.gsfc.nasa.gov/SEplot/SEplot2001/SE2013May10A.GIF

Hybrid solar eclipse

Start : 2013-11-03 - End : 2013-11-03
For more information:

http://eclipse.gsfc.nasa.gov/SEplot/SEplot2001/SE2013Nov03H.GIF

7. New documents in the European Space Weather Portal Repository

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

Space Radiation Effects

This presentation gives an overview of the charged particle radiation environment and its main effects on spacecraft material.
http://www.spaceweather.eu/en/repository/show?id=178