STCE Newsletter

22 Jul 2013 - 28 Jul 2013

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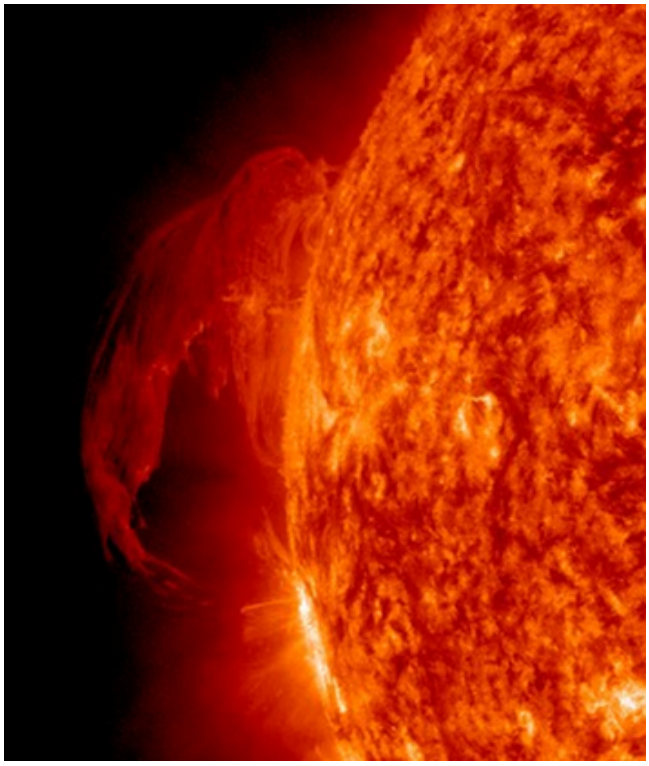
The Solar-Terrestrial Centre of Excellence (STCE) is a collaborative network of the Belgian Institute for Space Aeronomy, the Royal Observatory of Belgium and the Royal Meteorological Institute of Belgium.

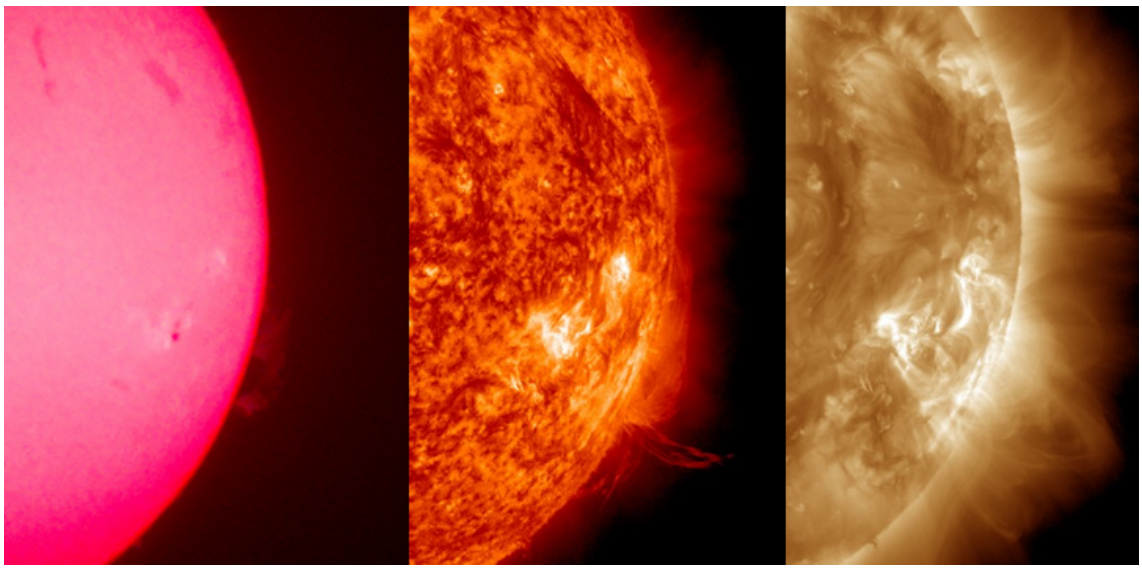
Final Editor : Petra Vanlommel
Contact : R. Van der Linden, General Coordinator STCE,
Ringlaan - 3 - Avenue Circulaire, 1180 Brussels,
Belgium

1. Prominences do the catwalk (22 Jul 2013 - 28 Jul 2013)

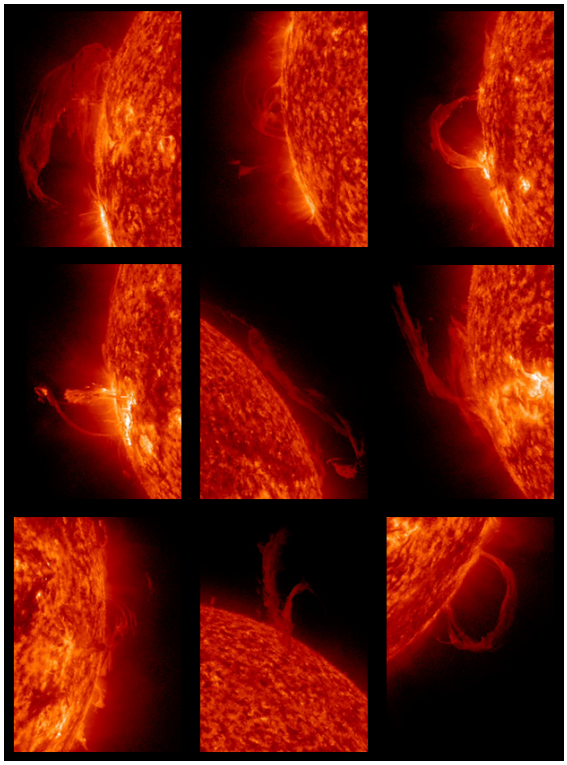
The month of July saw some really great prominence activity. Prominences are relatively cool and dense structures reaching all the way up into the Sun's hot outer atmosphere. This movie at http://www.youtube.com/watch?v=2fqr65y2-0Q shows nine events picked from a long list.



All events in this movie show the chromospheric dynamics as seen through SDO's AIA 304 filter (http://sdo.gsfc.nasa.gov/data/). With this wavelength we observe plasma at a temperature of 50,000 degrees. The plasma in the higher chromosphere and lower transition region emits at this wavelength. A temperature of 50,000 degrees is higher than the temperature of the plasma seen in Hydrogen-alpha (H-alpha, 656.3 nm), but much cooler than most of the other extreme ultraviolet (EUV) filters of SDO. Hence, these "cool" prominences seen in 30.4 nm are usually somewhat beefed up compared to H-alpha (left image underneath; 9 May 2013), whereas they are hardly visible in the "hotter" SDO filters such as AIA 193 (near 1 million degrees; right image underneath). There, if visible at all, they are mostly observed as dark features against the brighter coronal background.



There's quite a variety in the prominences shown. For example, the first is by far the largest and most solid prominence eruption of the series. Events 2 and 7 are actually the same active area separated by half a solar rotation. They are no real eruptions, but display dynamical chromospheric activity in which plasma (charged particles) condensates in the Sun's atmosphere before it falls towards the surface along the magnetic field lines. Event 5 had material traveling about one seventh of the solar circumference in less than 3 hours. That's an apparent speed of about 65 km/s! Events 3 and 9 were just cute little rings, manner of speaking. Surely, these July prominences knew how to show themselves from their best side!



2. PROBA2 Guest Investigator Program

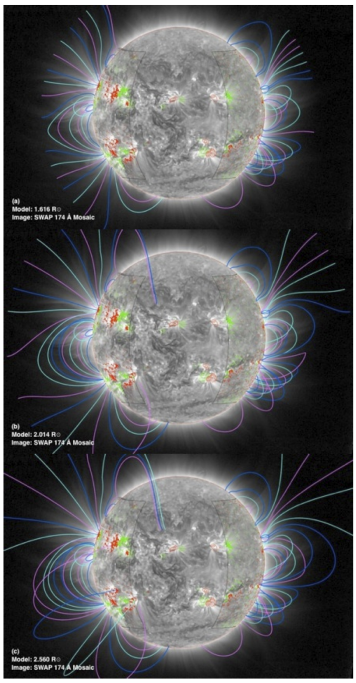
PROBA2, the technologically advanced ESA micro-satellite studying the Sun, has been in orbit since November 2009 (http://proba2.oma.be). Onboard, both the EUV imager SWAP and the EUV/UV radiometer LYRA have been acquiring unique data for more than three years. During that time, 25 PROBA2 Guest Investigators have visited the PROBA2 Science Center at the Royal Observatory of Belgium, in Brussels, to efficiently use PROBA2 data in their research.

Meet and work with the LYRA and SWAP data parents

A new Call for Ideas for the PROBA2 Guest Investigator Program is now open for the period October 2013 and May 2014.

Selected proposers will be invited to spend up to a few months with the PI teams to obtain expert knowledge on the instruments and to participate in the daily operations of SWAP and LYRA. Each guest investigator will be reimbursed for travel, accommodation and living expenses. Additional details about the PROBA2 Guest Investigator program and application information can be found on the PROBA2 website at:
http://proba2.oma.be/FourthGICall

Some results



Each image combines two separate models of the east and west limb, showing the magnetic field configuration with source surfaces at R_{ss} = 1.616 $R_\odot$ (a), R_{ss} = 2.014 $R_\odot$ (b), and R_{ss} = 2.560 $R_\odot$ (c). (PROBA2/SWAP, CMS2 3D Display.)

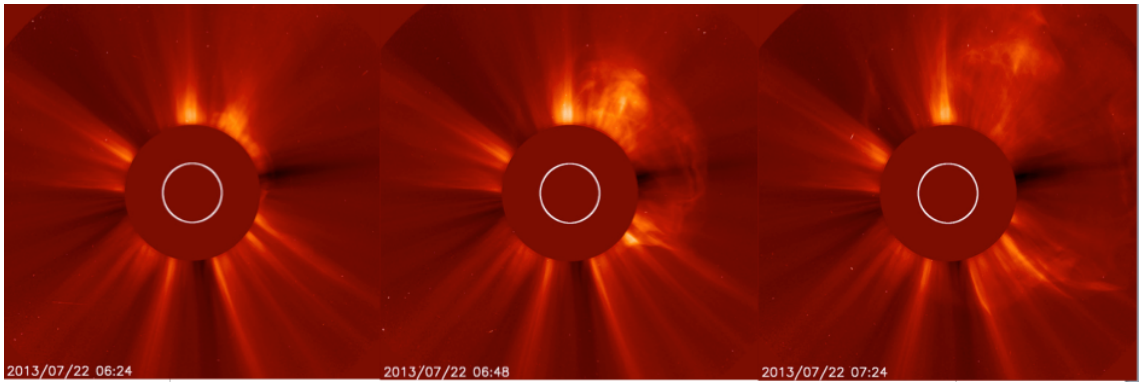
Muzhou Lu (Williams College, USA) visited the PROBA2 Science Center in January 2013 and compared SWAP images to images from an eclipse. This is a figure where he plotted a Porential-Field Source Surface (PFSS) magnetic field model on top of SWAP images to see how well the model was forecasting what SWAP observed. He calculated and draw the magnetic field in the corona by extrapolating the photospheric magnetic field measured by the instrument HMI onboard of the satellite SDO.

3. Review of solar activity (22 Jul 2013 - 28 Jul 2013)

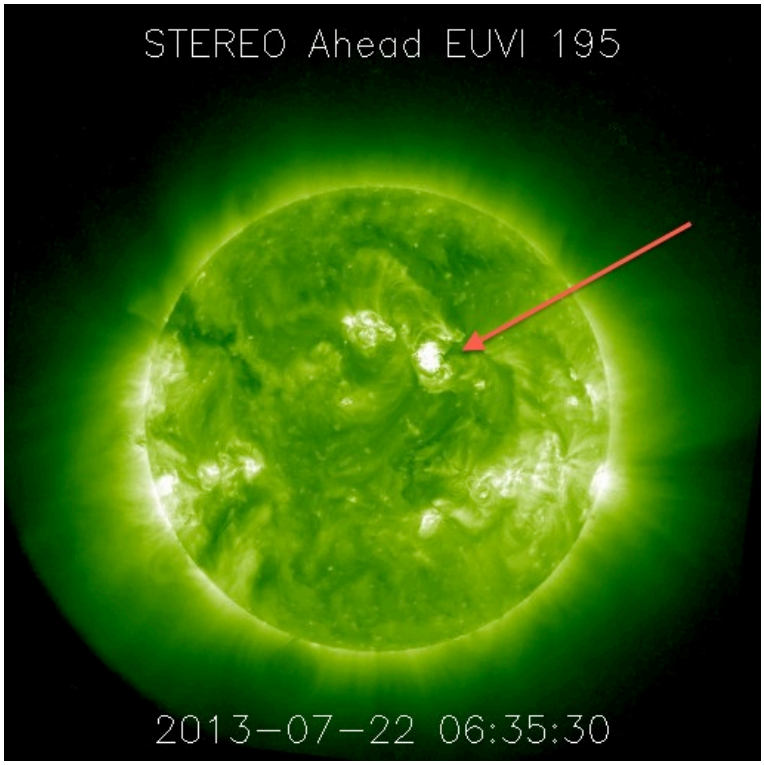
Nine active regions were reported by NOAA during the week (corresponding Catania sunspot group numbers are shown in brackets): 1793 (33), 1800 (35), 1799 (34), 1802 (36), 1803 (37 and 45), 1801 (38 and 41), 1804 (39), 1805 (44), and 1806 (50). The flaring activity was up to the low C-level and came almost exclusively from the NOAA AR 1800 (Catania sunspot group 35), with the strongest flare being the C3.2 flare peaking at 12:21 UT on July 28.

3 non-geoeffective CME's

Three halo CMEs were detected by SOHO/LASCO during the week. On July 22 a full and a partial halo CMEs were detected, first appearing in the LASCO C2 field of view at 06:24 UT and 23:06 UT (after a data gap), respectively. The white cloud in the photo's made by the coronograph LASCO/C2 onboard of SOHO shows the first CME on 3 successive times.

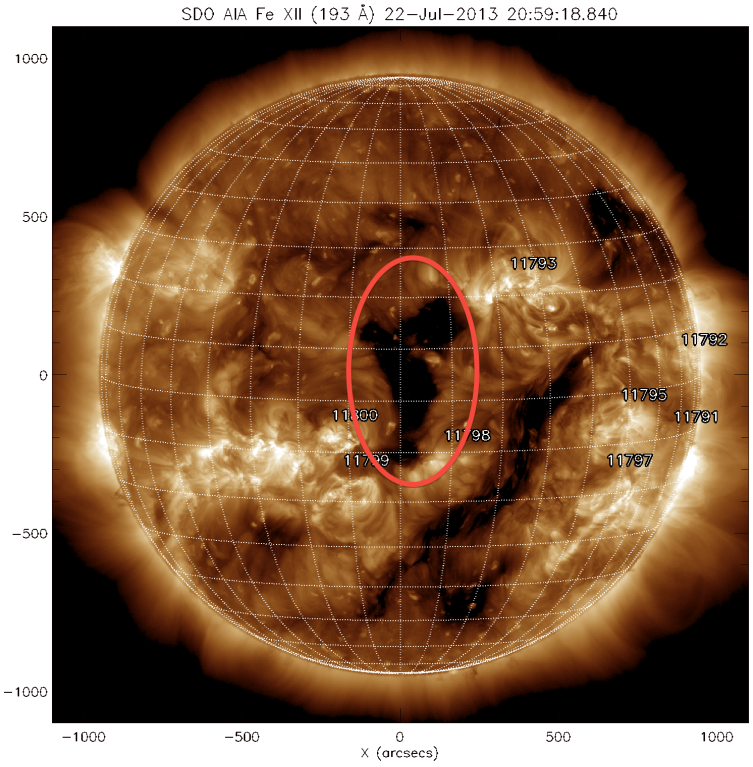


The partial halo CME had the principal angle around 310 degrees and angular width of around 220 degrees. The CMEs had the plane-of-the-sky projected speeds around 850 km/s and 400 km/s, respectively. STEREO/SECCHI data demonstrate that these were farside CMEs erupted from the same source region situated around W160 (W170 at the time of the second CME) as seen from the Earth. These CME were therefore not geoeffective. The picture below is taken by STEREO Ahead in the EUV. It shows the back-side from the Sun. The action region indicated with the arrow is not visible from the Earth.



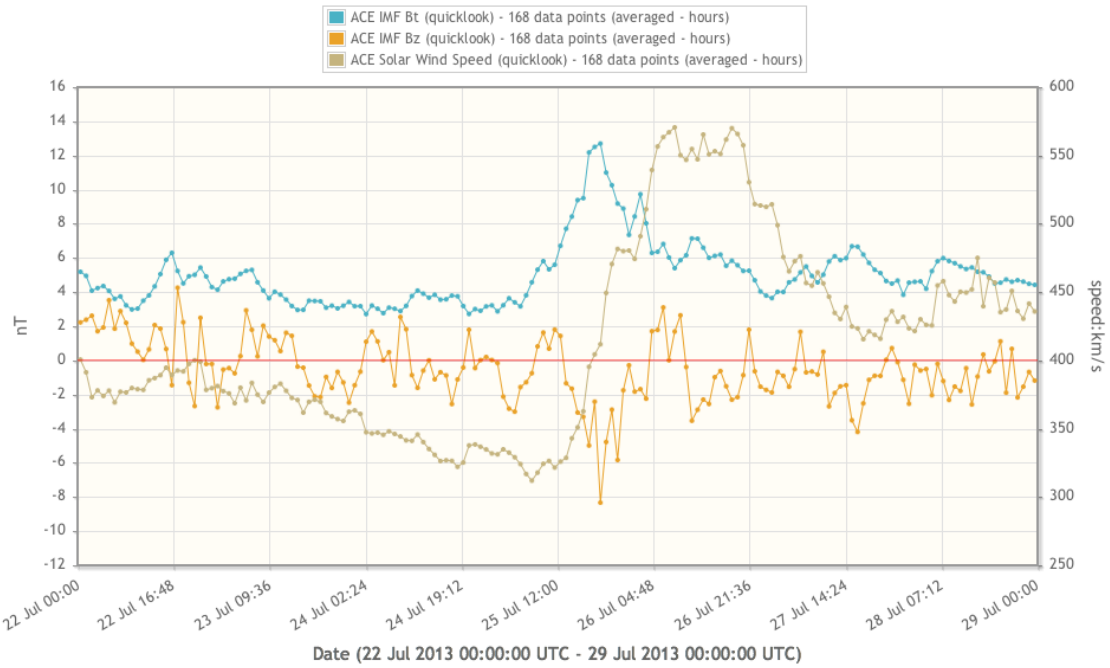
A partial halo CME (angular width around 135 degrees, principal angle 215 degrees) was detected by SOHO/LASCO on July 26 first appearing in the LASCO C2 field of view at 18:36 UT. It was accompanied by the C1.5 flare peaking at 19:28 UT situated just behind the south-west limb (a post-eruption arcade was detected by SDO/AIA). The CME speed was around 500 km/s according to the CACTus software. Due to the CME source region position behind the limb, this CME was not geoeffective either.

Coronal hole



An equatorial coronal hole reached the solar central meridian on July 22. Above, a picture taken by SDO/ AIA, 19.3 nm. The fast solar wind stream from this coronal hole arrived at the Earth early on July 26 (see also the section 'Review of geomagnetic activity').

4. Review of geomagnetic activity (22 Jul 2013 - 28 Jul 2013)



In the beginning of the week the Earth was situated inside a slow solar wind flow and the geomagnetic activity was on the quiet to unsettled levels (K index below 4). On July 25 the Earth entered the interaction region between the slow and fast solar wind flows, with the fast flow produced by the equatorial coronal hole (see the section 'Review of solar activity'). The interplanetary sector boundary was crossed in the afternoon of July 25, and the interplanetary magnetic field (IMF) magnitude reached almost 15 nT, with several intervals of southward IMF. This is visible in the top picture: the orange curve fluctuates between positive and negative values. As a result, on July 25-26 the K-index reported by Dourbes, IZMIRAN, and NOAA reached 4 (active geomagnetic conditions). The peak speed of the fast stream was reached in the morning of July 26 and amounted to around 600 km/s. On July 28 the Earth was again inside a slow solar wind flow, with geomagnetic conditions on the quiet to unsettled level.

5. PROBA2 Observations (22 Jul 2013 - 28 Jul 2013)

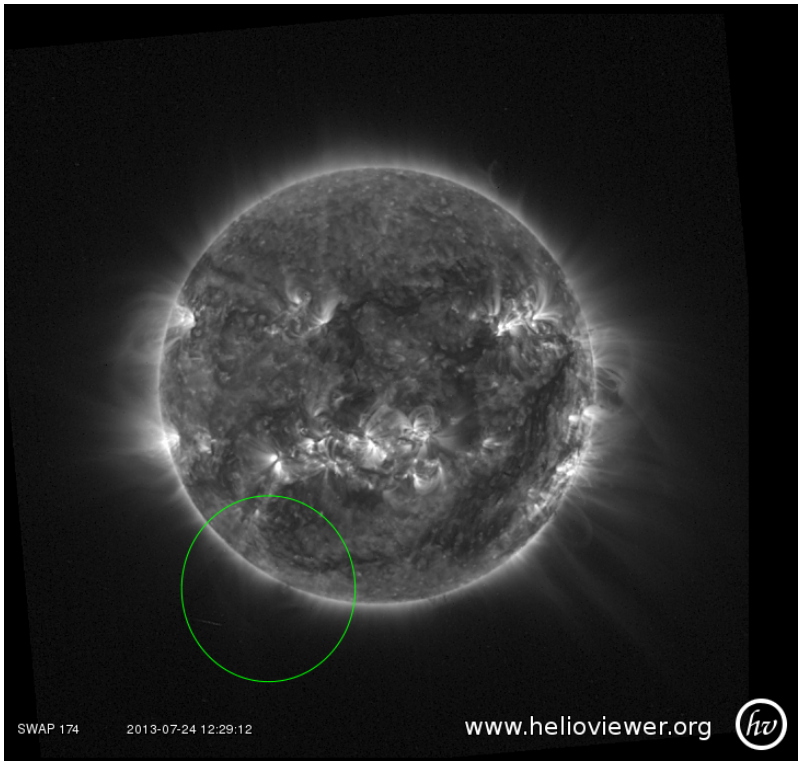
Solar (flaring) activity evolved from very low to low during week.
In order to view the activity of this week in more detail, we suggest to go to the following website from which all the daily (normal and difference) movies can be accessed: http://proba2.oma.be/ssa.
This page also lists the recorded flaring events.

A weekly overview movie can be found here: http://proba2.oma.be/swap/data/mpg/movies/WeeklyReportMovies/WR174_Jul22toJul28_2013/2013_07_22_00_00_07_2013_07_28_22_54_55_SWAP_174__AIA_304-hq.mp4 (SWAP174/AIA304 combination; HelioViewer.org).

Note that PROBA2 was off-pointed for a large part of the week, to track a large filament towards the West limb.

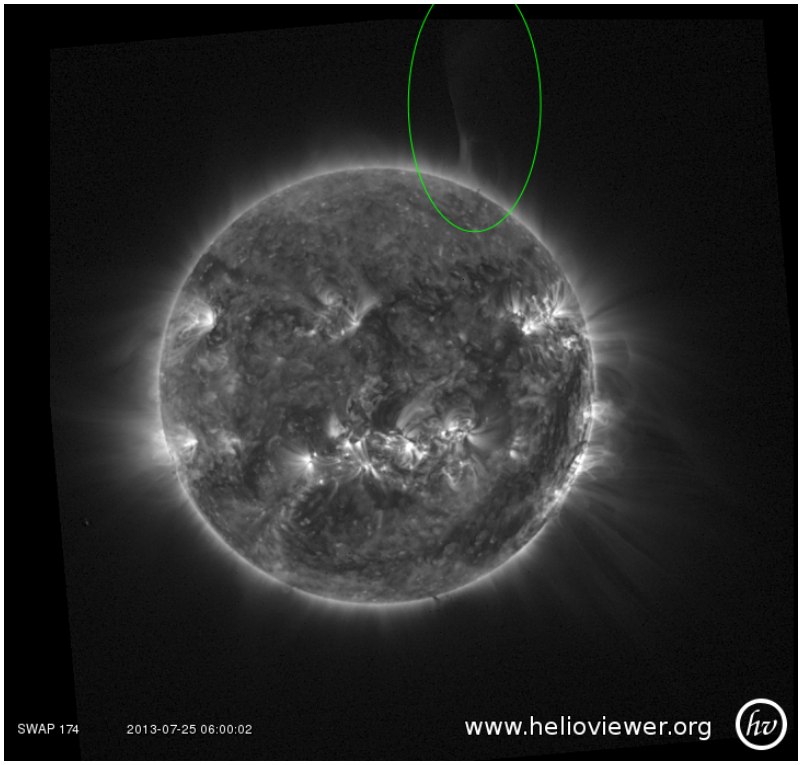
Details about some of this week's events, can be found further below.

Wednesday July 24th:



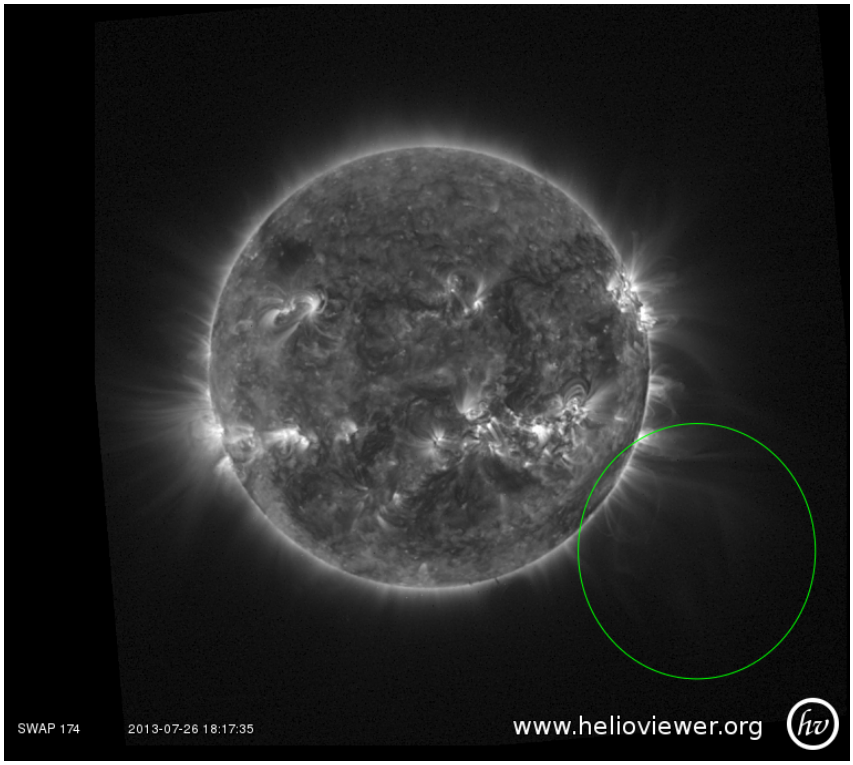
Prominence Eruption on South East limb @ 12:29 - SWAP normal image
Find a movie of the event here: http://proba2.oma.be/swap/data/mpg/movies/WeeklyReportMovies/WR174_Jul22toJul28_2013/Events/2013_07_24_09_29_21_2013_07_24_15_22_32_SWAP_174-hq.mp4 (SWAP normal movie).

Thursday July 25th:



Prominence Eruption on North West Limb @ 06:00 - SWAP normal image
Find a movie of the event here: http://proba2.oma.be/swap/data/mpg/movies/WeeklyReportMovies/WR174_Jul22toJul28_2013/Events/2013_07_24_23_30_02_2013_07_25_11_29_23_SWAP_174-hq.mp4 (SWAP normal movie)

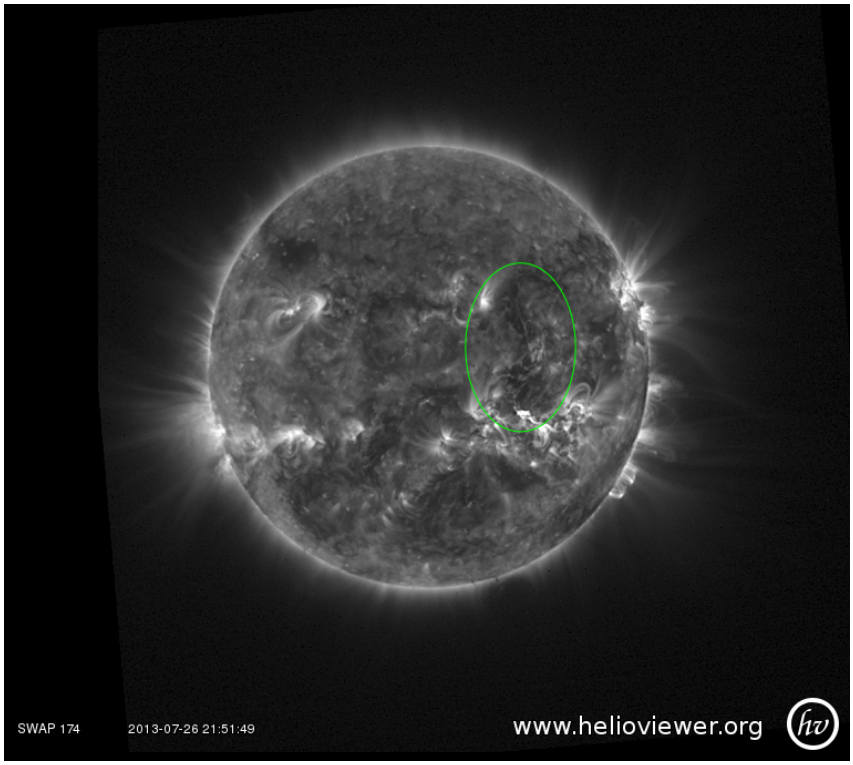
Friday July 26th:



Prominence Eruption on South West Limb @ 18:17 - SWAP normal image
Find a movie of the event here: http://proba2.oma.be/swap/data/mpg/movies/WeeklyReportMovies/WR174_Jul22toJul28_2013/Events/Prominence_Eruption/2013_07_26_15_30_45_2013_07_26_21_28_02_SWAP_174-hq.mp4 (SWAP normal movie)

Capturing the eruption of the above prominence was the primary reason for this week's SWAP off-pointing campaign (see also the addendum to this bulletin).

The eruption of this filament generated a CME, captured by CACTus here: http://sidc.oma.be/cactus/catalog/LASCO/2_5_0/qkl/2013/07/CME0070/CME.html



C1.8 Eruption, with material transfer from South to North hemisphere @ 21:51 - SWAP normal image

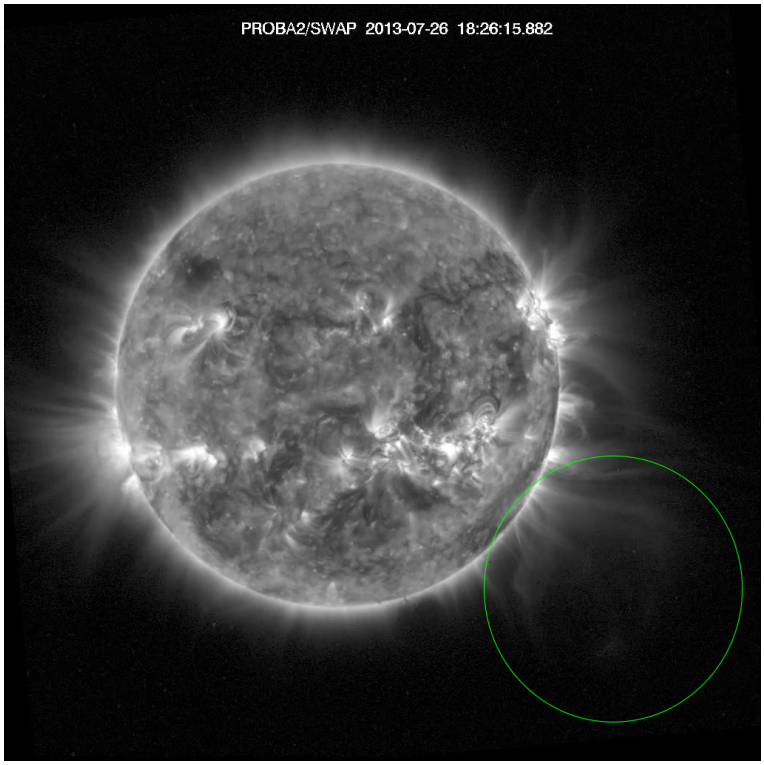
Find a movie of the event here: http://proba2.oma.be/swap/data/mpg/movies/WeeklyReportMovies/WR174_Jul22toJul28_2013/Events/Prominence_Eruption/20130726_C18_Eruption_2200_swap_diff_offpoint.mp4 (SWAP difference movie)

6. Special SWAP observations (22 Jul 2013 - 28 Jul 2013)

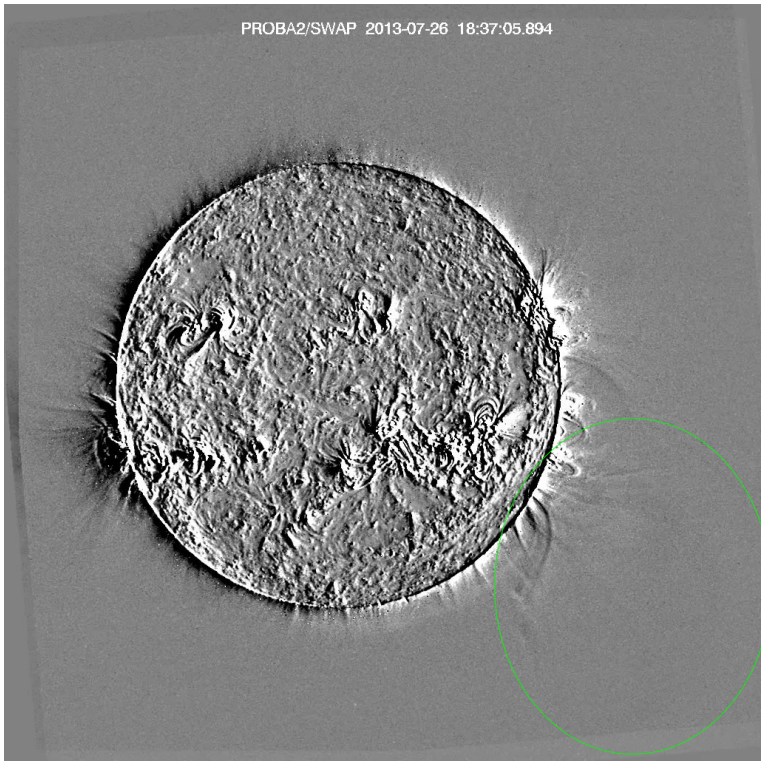
Special operations were executed to off-point PROBA2 in the direction of the Solar West limb.

A big filament, which had formed in the South was moving towards the west limb, and we were hoping that it might erupt when it got close to the limb. With PROBA2 off-pointed, we might thus be able to follow its eruption further away from the Sun than usual.

And we were lucky, the filament erupted indeed on Friday 26th, around 18:20. Below are provided some extra processed images and movies showing the eruption of the filament up to the limits of the SWAP field of view.



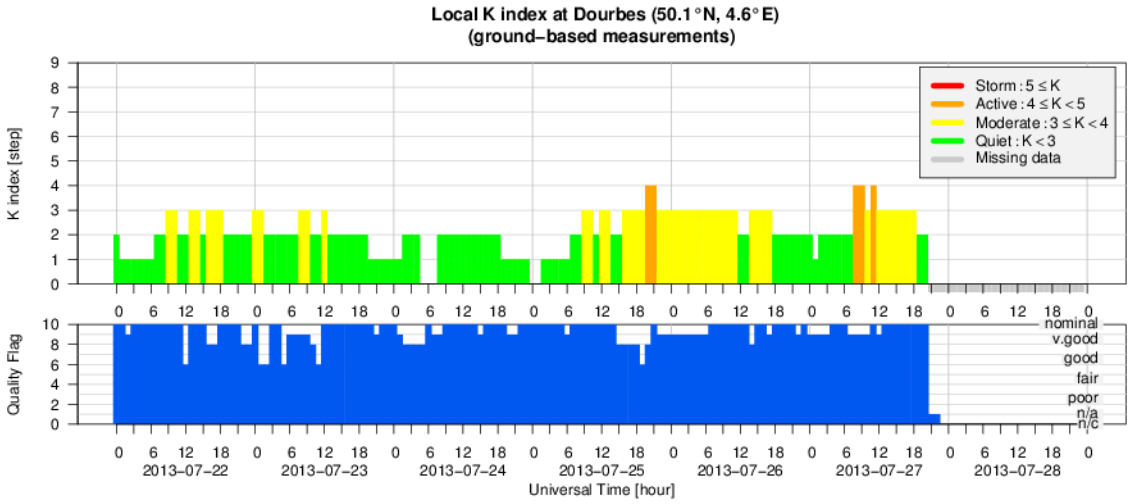
Prominence Eruption on South West Limb @ 18:26 - SWAP normal image



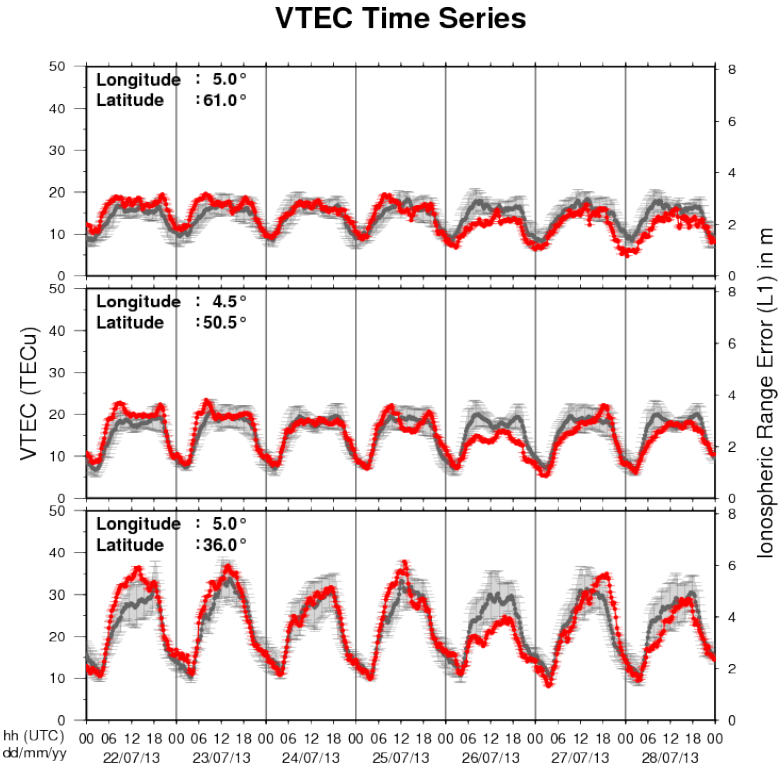
Prominence Eruption on South West Limb @ 18:37 - SWAP difference image

Find a movie of this occurrence (SWAP difference movie) here: http://proba2.oma.be/swap/data/mpg/movies/WeeklyReportMovies/WR174_Jul22toJul28_2013/Events/Prominence_Eruption/20130726_PromErupt_1837_swap_diff_offpoint.mp4

7. Geomagnetic Observations at Dourbes (22 Jul 2013 - 28 Jul 2013)



8. Review of ionospheric activity (22 Jul 2013 - 28 Jul 2013)



The figure shows the time evolution of the Vertical Total Electron Content (VTEC) (in red) during the last week at three locations:

a) in the northern part of Europe(N61°, 5°E)
b) above Brussels(N50.5°, 4.5°E)
c) in the southern part of Europe(N36°, 5°E)
This figure also shows (in grey) the normal ionospheric behaviour expected based on the median VTEC from the 15 previous days.

The VTEC is expressed in TECu (with TECu=10^16 electrons per square meter) and is directly related to the signal propagation delay due to the ionosphere (in figure: delay on GPS L1 frequency).
The Sun's radiation ionizes the Earth's upper atmosphere, the ionosphere, located from about 60km to 1000km above the Earth's surface.The ionization process in the ionosphere produces ions and free electrons. These electrons perturb the propagation of the GNSS (Global Navigation Satellite System) signals by inducing a so-called ionospheric delay.

See http://stce.be/newsletter/GNSS_final.pdf for some more explanations ; for detailed information, see http://gnss.be/ionosphere_tutorial.php

9. Future Events

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

1st SOLARNET - 3rd EAST/ATST meeting in Oslo, Norway

Start : 2013-08-05 - End : 2013-08-08
The goal of this workshop is to foster collaborations between ground and space solar projects. This workshop is expected
* to provide a forum to discuss the use of current and future observational solar facilities, and how to optimise their scientific returns;
* to identify the potentially paradigm-shifting observations that will become possible with the next generation ground- and space-based solar telescopes and their advanced instrumentation;
* to foster collaborations between researchers working at the development of ground- and space-based projects and creation of synergies between research programs at different wavelength bands.
Website:
http://folk.uio.no/matsc/oslo-13/info.html

1st SOLARNET Workshop, 3rd EAST/ATST meeting: 'Synergies between ground- and space-based solar research', in Oslo, Norway

Start : 2013-08-05 - End : 2013-08-08
The goal of this workshop is to foster collaborations between ground and space solar projects. This workshop is expected 1) to provide a forum to discuss the use of current and future observational solar facilities, and how to optimise their scientific returns; 2) to identify the potentially paradigm-shifting observations that will become possible with the next generation ground- and space-based solar telescopes and their advanced instrumentation; 3) to foster collaborations between researchers working at the development of ground- and space-based projects and creation of synergies between research programs at different wavelength bands.
A workshop webpage and more information will follow shortly - the purpose of this pre-announcement is to enable early bookings in your calendar.

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 MÃ©rida YucatÃ¡n, 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/

Solar Physics and Space Weather Instrumentation V in San Diego, CA (USA)

Start : 2013-08-25 - End : 2013-08-29
This conference will focus on instrumentation, observatories, space missions, and programs for observations from the Sun to Earth's upper atmosphere and space environment. The aim is to bring together diverse communities working on all elements of solar physics and space weather instrumentation.
Studying solar phenomena and monitoring space weather requires observations using both space- and ground-based instrumentations covering the different regions of the Sun-Earth system, the Sun, interplanetary medium, magnetosphere, ionosphere, and thermosphere. Papers are solicited concerning all instrumentation-supporting solar physics and space weather. This includes, but is not limited to, concepts, designs, fabrication processes, calibration, data trending, information technologies, solar data mining, instrument modeling, and satellite lifetime prediction modeling. We are also interested in all past, current, and future solar space missions and satellite and ground constellations of space weather instrumentation with a strong focus on Space Situational Awareness.
This conference is intended to provide the solar physics community and that of Earth's space environment with a forum for discussing the latest updates on instrumentation, observation techniques, and programs in their respective fields, and for proposing innovative ideas for future Sun-Earth coordinated observations.
Website: http://spie.org/op423

2013 Meeting of the Italian Community in Solar and Heliospheric Physics in Catania, Italy

Start : 2013-09-04 - End : 2013-09-06
The purpose of the meeting is to provide a forum for the italian scientists in the field (some of which are abroad) to consolidate on-going collaborations and establish new ones, for example in future projects such as Solar Orbiter and EST, where several of us are involved.
The meeting is obviously open to scientists from all the countries!
Website:
http://www.oact.inaf.it/weboac/SoHe2013/

14th European Solar Physics Meeting in Dublin, Ireland.

Start : 2013-09-08 - End : 2013-09-12
The European Solar Physics Meetings aim to highlight all aspects of modern solar physics, including observation and theory that span from the interior of the Sun out into the wider heliosphere. These meetings provide a broad, yet stimulating, environment for European and international scientists to share their research in solar physics.
The meeting will mostly comprise of contributed talks and poster presentations, with several invited review talks (typically one per session). Posters will be on display for the whole meeting in close proximity to the lecture theatre. Refreshments will be served in the poster viewing area during two dedicated coffee/poster breaks on each full day.
Website: http://www.espm14.ie/

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/

2nd UK-Ukraine meeting on Solar Physics and Space Science (UKU SPSS) in Kiev, Ukraine

Start : 2013-09-16 - End : 2013-09-20
The meeting will cover a broad range of aspects of solar physics, space science and solar-terrestrial relations. We aim to include every side of solar and space research, including observations, theory, and numerical modelling. The main idea behind the meeting is to treat the entire solar-terrestrial domain as one system, rather than each region independently.
The topics to be covered are:
* advanced solar observations
* waves and flows in the Solar atmosphere
* structure and dynamics of solar magnetic fields
* connecting analytical theory and modern numerical simulations to observations
* new physics in numerical modelling
* linking solar interior with heliosphere
* particle acceleration in the Sun and heliosphere
* non-linear phenomena in space plasmas
* physics of magnetosphere and ionosphere
Website:
http://swat.group.shef.ac.uk/Conferences/Ukraine_UK_2013/index.html

Space science training week: data driven modeling and forecasting in Leuven, Belgium

Start : 2013-09-16 - End : 2013-09-19
This summer school targets to introduce a generation of young researchers (advanced master students, PhDs, and junior postdoctoral researchers) to the diverse aspects of space weather related research.
It will introduce theoretical approaches to space weather and its drivers, present modern solar data analysis tools, and cover state-of-the-art solar and space science simulations. Participants will learn about forecasting aspects and their quality control for space weather events, but also experience hands-on training in scientific proposal writing and receive do-and-don't tips for scientific presentations.
The scientific program is enriched by a public evening lecture on the solar influence on our climate, and the lecturers are invariably expert scientists with international standing.
The school is open to a maximum of 40 participants, and can benefit from its embedding within two international research network activities: an Interuniversity Attraction Pole P7/08 CHARM connecting heliospheric to astrophysical communities with 7 partner institutes, and a European FP7 Project eHeroes with 15 different partner institutes. Participation from outside both network activities is

strongly encouraged. Within Belgium, the school links up expertise from universities (KU Leuven, ULB, Gent University) to federal research institutes (the Solar-Terrestrial Centre of Excellence, the Royal Observatory of Belgium and the Belgian Institute for Space Aeronomy).
Website:
http://wis.kuleuven.be/CHARM/events/school/SSTW2013/

STEREO/WAVES & WIND/WAVES workshop on Solar Radio Emissions on Santorini, Greece

Start : 2013-10-07 - End : 2013-10-11
The aim of the workshop is to review the "state of the art" theories about generation and propagation of Solar radio burst and discuss the observational constrains and results that have been provided in this area by the WIND & STEREO missions during the last 20 years. Furthermore the STEREO & WIND observations will be put in the context of other missions such as RHESSI and ground based observatories. Finally, the preparation for the future explorations foreseen with Solar Orbiter and Solar Probe Plus will be discussed.
Website:
http://type3stereo.sciencesconf.org/

2nd Asian-Pacific Solar Physics Meeting, in Hangzhou, China

Start : 2013-10-24 - End : 2013-10-26
Initiated by Profs. Fang and Choudhury, the first Asian-Pacific Solar Physics Meeting (APSPM) was held in Bangalore two years ago. During the meeting, a consensus was achieved that it might be a good idea to have the APSPM every three years. Somehow the second APSPM was proposed to be held by mainland China in 2013. APSPM is aimed to exchange the recent research results in solar physics in the emerging asian-pacific region.
Asian-pacific regions are getting more and more active in solar physics, as signified by the construction of big facilities, including the Hinode satellite (Japan), SOXS (India), Chinese Solar Radio Heliogragh, and Optical & Near-Infrared Solar Eruption Tracer (ONSET). Therefore, colleagues have agreed to hold regional solar physics meetings regularly. The first Asian-Pacific Solar Physics Meeting (APSPM) was held in Bangalore during March 22-24 2011. During the meeting, a consensus was achieved that it might be a good idea to have the APSPM every three years. Somehow the second APSPM was proposed to be held by mainland China in 2013. APSPM is aimed to exchange the recent research results in solar physics in the emerging asian-pacific region.
Website:
http://sdac.nju.edu.cn/~solar/

Helicity Thinkshop on Solar Physics in Beijing, China

Start : 2013-10-27 - End : 2013-10-31
Magnetic helicity has been intensively studied from observational, theoretical, and many other aspects of solar physics. For this meeting we would like to invite solar physicists who are interested in the observational and theoretical studies of the helicity, to encourage thorough discussions on the relevant hot issues. The 1st Helicity Thinkshop was held successfully in 2009, and now the 2nd one will be held on October 27-31, 2013 in Beijing, China.
Website:
http://sun.bao.ac.cn/meetings/HT2013/

Workshop and School on Radio Sun in Zhengxiangbaiqi, Inner Mongolia, and Beijing, China

Start : 2013-10-28 - End : 2013-11-02
The Worshop and School on Radio Sun in Beijing and Inner Mongolia during Oct.28 - Nov. 2, 2013 is the first international academic seminar supported by the International Research Staff Exchange Scheme of the Seventh Fromework Programme of the European Union (FP7-IRSES-295272-RADIOSUN).

The primary aim of this programme is to establish close research interaction and collaboration between the key research groups involved in CSRH, SSRT, and ALMA projects and in development of relevant theory and data analysis tools, through the systematic research staff and knowledge exchange, joint research efforts exploiting existing data and facilities, and preparing the future world-class partnership in exploitation of the upcoming facilities.
The Workshop and School welcome all solar physicsts and students who are interested in solar radio astronomy to participate. We will discuss and exchange the scientific frontier problems, including the new-generation radio instruments (CSRH, Siberian multi-frequency radioheliograph, LOFAR, ALMA, and other new instruments), recent achievements and their scientific goals; methods and techniques of data processing (for example, software, radio image reconstructions, and method for studying various types of solar radio fine structures); and the objectives of new observational data and new mathematical methods.
Website:
http://beijingradiosun.csp.escience.cn/

25th Winter School of Astrophysics: Cosmic Magnetic Fields, in La Laguna, Tenerife, Spain.

Start : 2013-11-11 - End : 2013-11-22
Magnetic fields play an important role in many astrophysical processes. But magnetic are difficult to detect and to model or understand, since the fundamental equations describing the behavior of magnetized plasmas are highly non-linear. Hence, magnetic fields are often an inconvenient subject which is overlooked or simply neglected. Such difficulty burdens the research on magnetic fields, which has evolved to become a very technical subject, with many small disconnected communities studying specific aspects and details.
The school tries to amend the situation by providing a unifying view of the subject. The students would have a chance to understand the behavior of magnetic fields in all astrophysical contexts, from cosmology to the Sun. From star-bursting regions to AGNs in galaxies. The school will present a balanced yet complete review of our knowledge. Extensions into the unknown are also important to indicate present and future lines of research.
The Winter School will bring together in a relaxed working atmosphere a number of the leading scientists in this field, PhD students and recent postdocs. The conditions for a successful interaction will be granted, including two special sessions for those students that want to present their own work.
Website:
http://www.iac.es/winterschool/2013/

7th Hinode science meeting in Takayama, Japan

Start : 2013-11-12 - End : 2013-11-15
Since its launch in Sep-2006, more than 600 refereed papers have been published based on Hinode observations, presenting many new and important findings to the scientific community. However, due to the unexpectedly low levels of solar activity, until now the focus has mainly been on the more quiescent aspects of the solar cycle. With the solar maximum expected this year, through cooperative observations with SDO, IRIS, and ground based observatories, Hinode observations should lead to our understanding of active Sun phenomena, such as solar flares and CMEs, to be greatly improved. Making Hinode-7 an excellent opportunity to discuss solar activity in the current solar cycle and the related science through the use Hinode data, as well as other solar/space weather data. It will also be interesting to use this meeting to broaden our focus to include the solar-stellar connection as a means to deepen our understanding of solar activity.
Momentum is also gaining for Solar-C, which is being developed as an international collaboration between Japan, US and Europe. To further discuss this mission, the Solar-C science meeting will be held on 11-Nov.
Website:
http://www.kwasan.kyoto-u.ac.jp/hinode-7/

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:
http://www.stce.be/esww10/

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/

10. New documents in the European Space Weather Portal Repository

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

eHEROES - Interaction process of the CME-CME event from February 14-15, 2011

http://www.spaceweather.eu/en/repository/show?id=476

eHEROES - In-situ density of (I)CMEs versus CME geometry and mass derived from remote sensing data

http://www.spaceweather.eu/en/repository/show?id=477