

EGU 2016

Solar-Terrestrial Sciences

Division Meeting

Margit Haberreiter

Room K1 | 19 April 2016



Meetings | Publications | Outreach | www.egu.eu

AGENDA

1. Awards and Medals 2016
2. Medal Committees
3. OSP 2015 Award Ceremony
4. Update on ST OSPP (formerly OSP)
5. ST Division Organisation and Officers
6. ST Young Scientists Activities
7. ST Education and Public Outreach Update
8. ANGEO Update
9. 2016 GA/ST Scientific Programme
10. EGU 2017 and the Future
11. Any Other Business

Acceptance of the minutes of the ST Division Meeting 2015

1. Awards and Medals 2016

2016 Jean Dominique Cassini Medal

Michel Mayor

The 2016 Jean Dominique Cassini Medal & Honorary Membership is awarded to Michel Mayor for his major discoveries in the field of exoplanets, both by observations and theory and through detection methods and instrument developments in this rapidly developing new domain of modern astrophysics.

Thursday, 21 Apr, 12:15–13:15 / Room E1

**“A path to the detection of Earth-type planets”
(Jean Dominique Cassini Medal Lecture)**

2016 Hannes Alfvén Medal

Stephen A. Fuselier

The 2016 Hannes Alfvén Medal is awarded to Stephen A. Fuselier for his fundamental contributions to understanding the physics of the interaction of the solar wind with Earth's magnetosphere, comets, and the interstellar medium.

ST2.1 Open Session on the Magnetosphere

Mon, 18 Apr, 11:00–12:00 / Room K2

“The Magnetospheric Multiscale (MMS) Mission development and initial results”

2016 Julius Bartels Medal

Jeffrey Forbes

The 2016 Julius Bartels Medal is awarded to Jeffrey M. Forbes for his outstanding contributions to the understanding of atmospheric tides and their impact on upper atmosphere and ionosphere space weather.

ST1.1 Open Session on the Sun and Heliosphere

Thu, 21 Apr, 10:30–11:30 / Room 0.49

“Atmosphere-Ionosphere Coupling due to Atmospheric Tides”

”

2016 Arne Richter Award

Christian Möstl

The 2016 Arne Richter Award for Outstanding Young Scientists is awarded to Christian Moestl for his outstanding contributions to the understanding of coronal mass ejections, their 3D structure, their propagation in the heliosphere, and their effects at Earth.

ST2.1 Observations, theory and modelling of the heliospheric plasma processes and solar eruptions, and their effects on the planets

Tue, 19 Apr, 9:45–10:15 / Room E1

“A new view of solar coronal mass ejections with the Heliophysics System Observatory”

Awards and Medals

<http://www.egu.eu/awards-medals/>

The community is urged to come with suggestions of strong candidates!
Next Deadline for nominations: June 15, 2016

At Union level:

- The Union Medals for senior scientists including the most prestigious awards made by the Union that are associated with an EGU Honorary Membership
- The Union Awards including the Arne Richter Outstanding Early Career Scientists Awards

At Division level:

- The Division Outstanding Early Career Scientists Awards
- The Division medals for mid-career scientists (mid career: before retirement).

2. Medal Committees

Julius Bartels Medal Committee 2016

Julius Bartels (current committee):

Hermann Lühr (Chair)

Mark Lester

Rumi Nakamura

Yuri Shprits

Proposed 2016 committee:

Hermann Lühr (Chair)

Jeffrey Forbes [IN]

Mark Lester [OUT]

Rumi Nakamura

Yuri Shprits

Hannes Alfvén Medal Committee 2016

Hannes Alfvén (current committee):

Sandra Chapman [Chair]

Göran Marklund

Sami Solanki

Loukas Vlahos

Proposed 2016 committee:

Loukas Vlahos [Chair]

Sandra Chapman [Regular Member]

Stephen Fuselier [IN]

Göran Marklund [OUT]

Sami Solanki

3. OSP 2015 Award Ceremony

By Cassandra Bolduc

ST OSPP Coordinator

3. OSP 2015 Award Ceremony

Eligible for the Outstanding Student Poster Awards are students that:

- are first author and personally present the poster;
- satisfy one of the following criteria:
 - are a current undergraduate (e.g., BSc) or postgraduate (e.g., MSc, PhD) student;
 - are a recent undergraduate or postgraduate student (conferral of degree after 1 January of the year preceding the conference) who are presenting their thesis work

3. OSP 2015 Award Ceremony

In 2015:

- 1 awardee for $\sim 9 \pm 4$ posters with mark > 61 .
- 25 eligible posters
- 24 with mark > 61
- Awarding level above
 - mark 87 in 2015 (25 posters, 3 awards)
 - mark 92 in 2014 (35 posters, 3 awards)
 - mark 90 in 2013 (13 posters, 1 award)
 - mark 87 in 2012 (15 posters, 2 awards)
 - mark 79 in 2011 (16 posters, 2 awards)
 - mark 85 in 2010 (10 posters, 2 awards)

ST 2015 Outstanding Students Poster Award

Denys Dudkin

“Power line emission 50/60 Hz and Schumann resonances observed by microsatellite Chibis-M in the Earth's ionosphere”

abstract N° EGU2015-521 in session ST3.1

By Denys Dudkin, Vyacheslav Pilipenko, Fedir Dudkin, Vira Pronenko, and Stanislav Klimov

ST 2015 Outstanding Students Poster Award

Anastasia Tezari

**“Cosmic ray diurnal anisotropy during extreme events of the period
2001-2014”**

abstract N° EGU2014-359 in session ST5.1/NH8.8

By Anastasia Tezari, Helen Mavromichalaki, and Sofia Kolovi

ST 2015 Outstanding Students Poster Award

Christer van der Meeren

**“Observations of simultaneous multi-constellation GNSS scintillation in
nightside aurora over Svalbard”**

abstract N° EGU2014-4779 in session ST3.1

By Christer van der Meeren, Kjellmar Oksavik, and Dag Lorentzen

4. 2016: OSPP

Eligible for the Outstanding Student Poster and **PICO** Awards are students that:

- are first author and personally present the poster or PICO;
- satisfy one of the following criteria:
 - are a current undergraduate (e.g., BSc) or postgraduate (e.g., MSc, PhD) student;
 - are a recent undergraduate or postgraduate student (conferral of degree after 1 January of the year preceding the conference) who are presenting their thesis work

4. 2016: OSPP

We currently have 45 registered posters.

Thanks to the conveners and judges for making
this possible!

5. ST Division Organisation and Officers



President	Margit Haberreiter	st@egu.eu
Deputy President	Olga Malandraki	omaland@astro.noa.gr
Programme Group Chair	Margit Haberreiter	st@egu.eu
Science Officers	Manuela Temmer <i>Solar Physics</i>	manuela.temmer@uni-graz.at
	Natalia Ganushkina <i>Magnetosphere</i>	natalia.ganushkina@fmi.fi
	Olga Malandraki <i>Heliosphere</i>	omaland@astro.noa.gr
	Jan Laštovička <i>Ionosphere</i>	jla@ufa.cas.cz
Publications	Manuela Temmer	manuela.temmer@uni-graz.at
News, Media, Education and Public Outreach	Athanasios Papaioannou	atpapaio@astro.noa.gr
Scientific Affairs, Foreign Affairs, Division Liaison	Margit Haberreiter	st@egu.eu
Hannes Alfvén Medal Chair	Sandra Chapman	s.c.chapman@warwick.ac.uk
Julius Bartels Medal Chair	Hermann Lühr	hbluehr@gfz-potsdam.de
OSPP Coordinator	Cassandra Bolduc	cassandra.bolduc@pmodwrc.ch
ECS Representative	Beate Krøvel Humberstet	beate.humberstet@ift.uib.no
Webmaster	Athanasios Papaioannou	atpapaio@astro.noa.gr

ST Division Officer terms - Proposal

- ST Deputy President term (one year) can be renewed at maximum **four times**.
- ST Science Officer term (one year) can be renewed at maximum **six times**.
- ST Liaison Officers term (one year) can be renewed at maximum **four times**.

ST Structure and EGU principles:

- **Division Presidents elected and can be re-elected only once.**
 - **Margit Haberreiter (stand for re-election)**
 - **ST President election (autumn 2016), nominations invited by September 1, 2016)**
- **Division Officers are appointed at the Division Meetings**
- **Programme Group Chair**
Margit Haberreiter confirmed for 2017
- **Deputy President**
Olga Malandraki (2016, confirmed for 2017)

ST Scientific Officers

- **Heliosphere:**
Olga Malandraki (2016, confirmed for 2017)
- **Solar Physics:**
Manuela Temmer (2016, Manuela Temmer confirmed for 2017)
- **Magnetosphere:**
Natalia Ganushkina (2016, confirmed for 2017)
- **Ionosphere:**
Jan Laštovička (2015, outgoing)
Dalia Buresova, (2015 incoming, confirmed for 2016)

ST Liaison Officers 2016

- **Publications:**
Manuela Temmer (2016, confirmed for 2017)
- **OSP Coordinator:**
Cassandra Bolduc (2016, confirmed for 2017)
- **Young Scientist Representative**
Beate Krøvel Humberst (2016, outgoing)
Jone Peter Reistad (2017, incoming)

ST Liaison Officers 2016 cont.

- **News, Media, Education and Public Outreach, Webmaster
Athanasios Papaioannou (2016, confirmed for 2017)**
- **Scientific Affairs, Foreign Affairs, Division Liaison
Margit Haberreiter (2016 confirmed for 2017)**

6. ST Young Scientists Activities

Prepared by Beate Humberset

**[Representing the Solar-Terrestrial Sciences YS
representative at the GA]**

<http://www.egu.eu/young-scientists/>

ST Early Career Scientist (ECS) Activities



Solar-Terrestrial Sciences (ST)

Beate Krøvel Humberst

beate.humberst@ift.uib.no

Beate is a PhD fellow at the Birkeland Centre for Space Science, researching the dynamic nature of the coupling between the magnetosphere and ionosphere. She aims to create events and meeting places for the ST early career scientists at the next General Assembly.

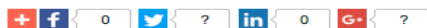


Jone Reistad at last year's ST short course for ECS.
Jone.Reistad@uib.no

Short Course for ST ECS

Meet the experts: The future of solar-terrestrial research

Laura Roberts-Artal · May 13, 2015 · Early Career Scientists, EGU, EGU GA 2015, General Assembly, Sessions, Short Courses, Space and Planetary Sciences · No Comments



Meet the Experts – The Future of Solar-Terrestrial Research. (Credit: Christer van der Meeren, Birkeland Centre for Space Science, University of Bergen)

This year's [General Assembly](#) saw more Short Courses than ever before! With many of the 50 courses on offer having been organised by and/or for early career scientists, there was no excuse not to pick up some new skills. In this guest blog post, [Jone Peter Reistad](#) a PhD candidate at the University of Bergen, outlines the details of a session which explored what the future might hold for research in the Solar-Terrestrial sciences. With active discussion between established and early career scientists this course was no doubt a hit.

During the General Assembly a new short course took place: [Meet the Experts – The Future of Solar-Terrestrial Research](#). In this session, three senior scientists as well as two Early Career Scientists (ECS) were invited to talk about their visions for the future of the Solar-Terrestrial sciences. They were given the difficult task of identifying important challenges within their field of expertise that the present young scientists need to address in the future.

The speakers came from the different communities within the solar-terrestrial division. This included the solar-, heliospheric-, and the near Earth space communities. They all did an outstanding job in pointing out challenges and knowledge gaps within their field.

Starting at the Sun, Louise Harra, Professor of solar physics at University College London, pointed out how much more we know today due to all the recent solar missions. She assured us that more is definitely to come, as new missions are already in the pipe-line, and encouraged the young scientists to get involved in these future missions at an early stage. She had lots of ideas of what to look for with more precise instruments, and pointed out that a key to understand the evolution of the structures observed at the surface of the Sun is to be able to model the evolution of the structures below the surface using helioseismology.

From the Heliospheric community, emphasis was put on the more recent ability to track evolution of hot gases all the way from the Sun to the Earth. Alexis Rouillard, researcher at the French National Centre for Scientific Research, told us that the recent satellite missions had contributed to strengthen the bonds between the Solar and Heliospheric communities so that the two now uses a more common terminology. This was a tendency he very much hoped to see continuing into the future.

The crucial link to Space Weather applications is the ability to predict the orientation of the magnetic field originating from the Sun when it reaches the Earth. This is by far the most uncertain factor in modeling the geomagnetic impact of a solar storm. Rouillard discussed how having a satellite closer to the Sun could possibly enhance our understanding of this propagation and hence revolutionise space weather predictions in the future.



Yuri Shprits, speaking at the session about the future of solar-terrestrial research. (Credit: Christer van der Meeren, Birkeland Centre for Space Science, University of Bergen)

Space Weather – the impact on the near Earth space from the outside – was also discussed from a more Earth-centered perspective. Communication through space-based instrumentation becomes increasingly important as more and more infrastructure is becoming dependent on satellite communications. A detailed knowledge of the mechanisms that influence our communications are therefore more important now than ever. Yuri Shprits, researcher at MIT and UCLA, emphasized that the Earth's radiation belts is a key region, and that there are still open questions regarding their buildup and loss mechanisms.

Are you interested in how the Sun affects the near Earth space?
Do you wonder how well we understand this system?
And most importantly, what challenges lies ahead for you to embark upon?

This is the Short Course for you:

Meet the Experts – The Future of Solar-Terrestrial Research (SC61)

-> Meet your peers and learn from an
expert panel of renowned researchers:



Dr. Sandra Chapman is an expert on physics of nonlinear complex systems, and has demonstrated an impressive interdisciplinary application of her knowledge, also outside plasma physics.



Dr. Nikolai Østgaard's research interests include the dynamic magnetosphere-ionosphere coupling and the production of Terrestrial Gamma-ray Flashes.



Dr. Franz-Josef Lübken knows the impact of energetic particle precipitation on the mesosphere and thus how the atmosphere couples to the near-Earth space.



See you **Tuesday**
at **13:30**
in **Room 2.85!**

7. ST Education and Public Outreach Update

<http://www.egu.eu/st/education-public-outreach/>



European Geosciences Union

Division on
Solar-Terrestrial Sciences

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Education & Public Outreach

The Solar-Terrestrial (ST) Sciences section embraces all regions of the Earth's atmosphere, ionosphere and magnetosphere that are under the influence of the physical conditions in the Sun (its interior and atmosphere), the solar wind (SW) and the galactic cosmic rays (GCRs), covering all aspects of solar and heliospheric physics from solar eruptive events such as solar flares and coronal mass ejections (CMEs) to the manifestations recorded *in situ* by an armada of spacecraft in the near-Earth environment and detectors on the ground (i.e. solar energetic particles – SEPs; Interplanetary CMEs – ICMEs), as well as the physical processes that couples the Sun's activity to the Earth's environment responses.

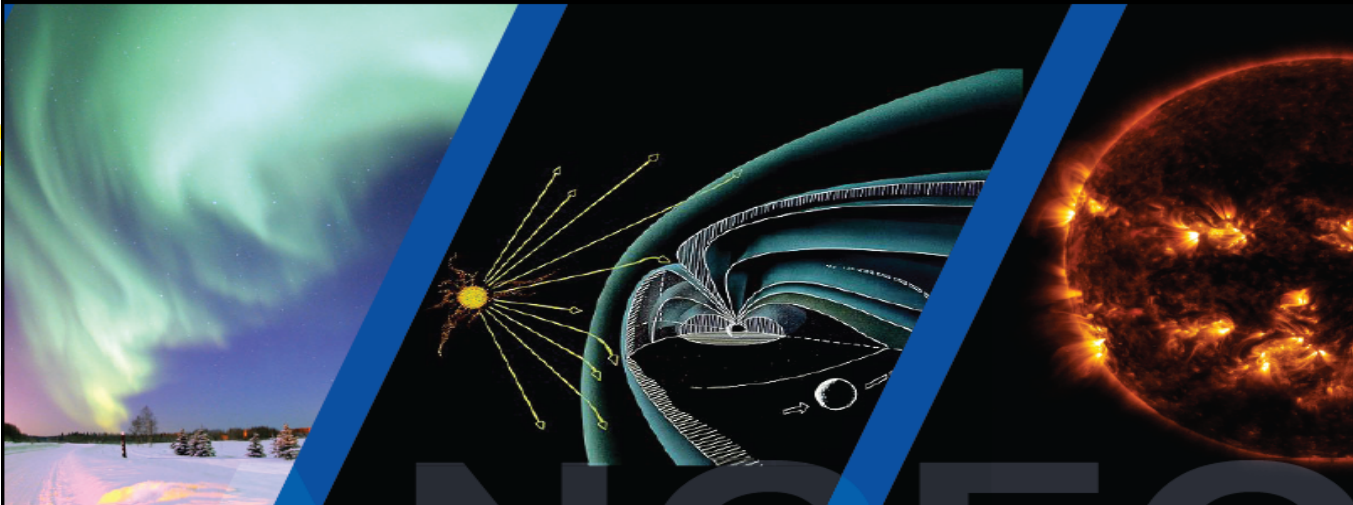
Solar storms are part of this quest for the unfolding, understanding and eventually predicting of the physical and phenomenological state of our natural space environment. To this end, scientists have been observing, monitoring, analyzing and modeling in both large and small scales the building blocks of these storms, in an attempt to identify the possible impacts on biological and technological systems. This research field, commonly termed as Space Weather, has received a lot of attention in recent years, since it can in some cases affect the technology that our daily lives depend upon.

In order to develop and sustain interest in ST Sciences and with the aim to ensure nurturing of the public, investment must be made in education and public awareness activities. Therefore, in the subpages of this section several efforts (e.g. Websites, Books, Videos) are being presented and categorized based on the audience (e.g. general public, University students, Scientists) to which these are applicable. Evidently, these lists are far from complete but it is a first step. To help contribute to this effort (e.g. add more information, links) please do contact [us](#).

Plans to set-up an EGU ST Blog

Responsible

- Athanasios Papaioannou (email: atpapaio@astro.noa.gr)
- Please send suggestions to him



Annales Geophysicae

An open-access journal of the European Geosciences Union



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Annales Geophysicae Editorial Board

Editors in Chief

I. Daglis
C. Jacobi

Subject

Topical Editors

bold: appointed since EGU 2015

Papers
submitted
2015

Solar Corona & Heliospheric Physics C. Scott, M. Temmer
M. Haberreiter

5

Magnetosphere & Space Plasma Physics
74

G. Balasis, I. Daglis, C. Owen,

E. Roussos, **Y. Miyoshi**

Ionosphere and Aeronomy

K. Hosokawa, H. Kil, S. Milan 62

Middle & Upper Atmosphere

C. Jacobi, A. Kavanagh 31

Lower Atmosphere & Climate

V. Kotroni, **M. Salzmann** 29

201

Papers received in 2014 and 2013

	2015 papers	2014 papers
Total	201 -8.2%	219
Regular Papers	185 (92%) -7%	199
Special Issue Papers	16 (8%) -20%	20

Papers published in 2015 and 2014

ANGEO				
	2015		2014	
	Papers	Pages	Papers	Pages
Total	137 (+7%)	1460 (-1.2%)	128	1477
Regular papers	117	1210	108	1300
Special issue papers	20	250	20	177

ANGEO impact factor **(2014): 1.709**

(2013: 1.676 / 2012: 1.518 / 2011: 1.842 / 2010: 1.620 / 2009: 1.648 / 2008: 1.660 / 2007: 1.427)

Editorial Board Meeting, Wednesday, 20.4.2015, 12:15-13:15

1. Review and discussion of the ANGEО journal report
2. Discussion of Publications Committee Meeting outcomes
3. Any other business

9. 2015 GA/ST Scientific Programme



EGU General Assembly 2016 facts

As of 14 April, the Assembly 2016 provides:

- 16,130 papers in programme | +13.34% (2015)
- 4,863 orals | 10,320 posters | 947 PICOs | ratio 30 / 64 / 6
- 619 unique scientific sessions | 321 side events*
- 10,988 registrations in advance (10,943 already paid) | +23.68% (2015)

*Side events include: SSE (w/o US), OEM (w/o EOS), STM, FAN, AM

EGU ST 2016 Statistics - Abstracts

Total: 538 abstracts [2015: 343 abstracts] **++ Growth of 57% ++**

Oral: 317 abstracts (59 %) [2015: 144 abstracts]

Posters: 219 abstracts (40.7 %) [2015: 249 abstracts]

PICO ratio: 0 abstracts (0 %) [2015: 18 abstracts]

**18 ST led sessions spread over 18 ST lead sessions and 6 co-organized sessions
(includes 2 ST Division Medal oral blocks, 1 Arne Richter lecture)**

EGU ST 2016 Scheduling

Maximum number of ST oral blocks determined by:

- EGU boundary conditions on room availability
- Oral sessions only in the first four daily slots [other papers are given as posters].

ST oral blocks are allocated taking the following into consideration:

- Time Requests (Requests to AVOID scheduling on the following days).
- Inter-Session Relations (No-Overlap Request).
- Number of Oral and Poster abstracts.

Many thanks to all science secretaries and session conveners !

EGU 2016 ST Ranked Support Applications

- 3 ECSAs “Early Career Scientist’s Travel Awards” were granted [17 applicants]
- 1 ESTA “Established Scientist’s Travel Award” was granted [2 applicants]
- Travel Award Officer: Thomas Blunier, CL President

Communication Activities at the Assembly

EGU Today

- EGU Today is a daily newsletter highlighting interesting workshops, lectures and GeoCinema screenings, amongst activities at the Assembly
- Paper copies will be distributed daily and are available to download at www.egu2016.eu/egu_today

Blogs

- GeoLog, the EGU Blog Network & EGU Division Blogs will be sharing great sessions, research, interviews and more throughout the Assembly
- Follow them at geolog.egu.eu and blogs.egu.eu

Social Media

- Sessions will be advertised on Twitter ([@EuroGeosciences](https://twitter.com/EuroGeosciences)) and Facebook ([European Geosciences Union](https://www.facebook.com/EuroGeosciences))
- Participants can ask questions & keep updated by following **#EGU16**

Purpose of Galileo conferences:

- Bring together up to 100 participants for a 3-5 days meeting to discuss a well-focused cutting-edge topic at the frontier of geosciences research in a stimulating environment.
- Possibility to publish a special Galileo Conference proceeding issue in one of the EGU journals

Support:

- EGU is putting at disposal the conference organization tools; web hosting, abstract, programme and registration management.
- EGU provides comprehensive organisational support by organizing e.g. venue, poster boards, catering, Wi-Fi facilities, etc. Thereby the organising committee can fully focus on the scientific aspects of the conference.
- Support for Early Career Scientists (up to 5000€)
- EGU is covering a potential deficit of the event.

10. EGU 2016 and the Future

The background features a large, faint, stylized outline of the EGU logo, which consists of a circle with a jagged, gear-like edge. Inside the circle, the letters 'EGU' are written in a bold, sans-serif font. The 'E' and 'G' are white, while the 'U' is a light gray color.

ST Medal/Award Nominations

- Deadline 15. June, 2016!!
- Particular invitation for the nomination of female researcher
 - Hannes Alfvén Medal
 - Julius Bartels Medal
 - Outstanding Early Career Scientist Awards
 - Division Award
 - Arne Richter Award (Union Medal)

Promotion of PICO Sessions

- Increase of abstracts
- Limited number of oral blocks
- PICO Sessions are great way to communicate you science
- Very interactive
- Invited presentations possible (10min – PICO presentation)

EGU 2017 – Subprogramme Groups

ST1 – Sun and Heliosphere

ST2 – Magnetosphere

ST3 – Ionosphere and Thermosphere

ST4 – Space Weather and Space Climate (optional)

Any Other Business

Suggestions
Questions