

## Newsletter 19-04

Issue 19-04, February 2, 2019

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REMINDER: EPSC-DPS2019 CALL-FOR-SESSIONS DEADLINE (5TH FEBRUARY)

Dear colleagues,

Reminder: The upcoming deadline to submit session proposals for the EPSC-DPS

Joint Meeting 2019 is on 5 February 2019.

Important note: a call for workshops and splinter meetings will be posted later.

The meeting will cover the whole scope of planetary science. You may propose sessions for the following Programme Groups (PG):

TP - Terrestrial Planets

OPS - Outer Planet Systems

MIT - Missions, Instrumentation, Techniques

SB - Small Bodies (comets, KBOs, rings, asteroids, meteorites, dust)

EXO - Exoplanets and Origins

ODA - Outreach, Diversity, Amateur Astronomy

Please submit your proposal to the most appropriate Programme Group (PG).

All session proposals will be considered and reviewed by the Scientific Organizing Committee. During the consolidation phase of the programme, sessions may be listed across two or more PGs.

Please feel free to contact us at [epsc-dps2019@copernicus.org](mailto:epsc-dps2019@copernicus.org) [1] if you have any questions regarding your session proposal.

To submit a proposal, please access <https://meetingorganizer.copernicus.org/epsc-dps2019/provisionalprogramme> [2]

Then select a PG at the top and click on "suggest a session here" to fill out your session proposal.

We look forward to more good proposals for exciting sessions.

Best regards,

Maria Cristina De Sanctis, Joe Spitale, Frank Sohl & Devon Burr

Scientific organizing committee chairs

Jean-Pierre Lebreton

Executive EPSC committee chair

Linda Spilker

DPS Chair

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## CALL FOR DPS 2019 PRIZE NOMINATIONS

Deadline: April 1, 2019

Every year the DPS recognizes exceptional achievement in our field.

Please consider nominating a respected colleague for one of the annual

DPS prizes. The DPS sponsors five prizes:

The [Gerard P. Kuiper Prize](#) [3] honors outstanding contributions to the field of planetary science.

The [Harold C. Urey Prize](#) [4] recognizes outstanding achievement in planetary research by a young scientist.

The [Harold Masursky Award](#) [5] acknowledges outstanding service to planetary science and exploration.

The [Carl Sagan Medal](#) [6] recognizes and honors outstanding communication by an active planetary scientist to the general public.

The [Jonathan Eberhart Planetary Sciences Journalism Award](#) [7] recognizes and

stimulates distinguished popular writing on planetary sciences.

DPS members and the planetary science community-at-large are encouraged to submit nominations for DPS prizes.

A complete nomination submitted by the deadline will be considered by the DPS Prize subcommittee for 3 years (i.e. for this year's award, next year's award, and the year after that), or for the duration of a candidate's eligibility, whichever is less. Please fill out the [nomination form](#) [8], and it will be submitted to the prize subcommittee. The Eberhart Award has different rules and procedures than the other DPS Prizes, please see [its page](#) [7] for more information.

Scroll to the bottom of <https://dps.aas.org/prizes> [9] for rules and procedures.

Questions: [dpsprize@aas.org](mailto:dpsprize@aas.org) [10]

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## AOGS SESSION PS02: PLASMA - SURFACE INTERACTIONS WITH AIRLESS BODIES IN THE SOLAR SYSTEM

We would kindly like to bring to your attention our session entitled

"Plasma - Surface Interactions with Airless Bodies in the Solar System", organized at the 2019 Asia Oceania Geosciences Society (AOGS) meeting, held from 28 July to 2 August in Singapore.

In this session we invite contributions that will move forward our understanding of fundamental plasma-surface interaction mechanisms with airless bodies in our Solar System. Investigations that explore key

challenges by exploiting the synergies between in-situ observations, simulations models and laboratory experiments to characterize the fundamental physical processes determining the global and local near-surface plasma environments are especially welcomed.

Full session details here:

<https://www.meetmatt-svr.net/Public/SessionDetailsPartial?id=13> [11]

With many successful missions to airless bodies recently completed, currently active, and in preparation, and with both simulation models and laboratory experiments resolving the finer details of plasma interactions better each year, this will surely be an exciting session!

Feel free to spread this announcement. Before February 12, submit your abstract here:

<http://www.asiaoceania.org/aogs2019/public.asp?page=abstract.htm> [12]

Thank you, we look forward to seeing you in Singapore!

Jan Deca, Li Hsia Yeo, Charles Lue

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**AOGS SESSION ST08: MAGNETIC FLUX ROPE THROUGHOUT THE SOLAR SYSTEM**

At the AOGS 2019 conference held in Singapore 28 July - 2 August 2019, we will convene a session titled: "ST-08 Magnetic Flux Rope Throughout

the Solar System".

We invite abstracts that address a wide range of topics on the fundamental physics of magnetic flux ropes from the solar atmosphere to the magnetospheres of Earth and planets (inner and outer planets, including Venus and Mars) using spacecraft observations, theoretical analysis, and numerical simulations. Magnetic flux rope is one of the most fundamental magnetic structures in space plasma physics and are ubiquitous in the solar system. They can exist in a wide range of spatial scales, from tens-of-million km coronal mass ejection in interplanetary space, to tens-of-thousands km flux transfer events and plasmoid-type flux ropes in global/induced planetary magnetospheres, down to the electron inertial scale length magnetic islands forming during the early stages of reconnection in thin current sheets. Despite having been extensively studied using classical plasma theory, numerical simulations and observations, many aspects of magnetic flux ropes remain unexplored, primarily their origins, dynamics (e.g. plasmoid instability) and their effects on field-aligned current generation, energetic particle acceleration and thermal plasma transport.

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#### NEW HORIZONS IN PLANETARY SYSTEMS

NOTE: February 8th is the deadline for abstract submission and applications for travel and childcare support

## New Horizons in Planetary Systems

Understanding planetary systems from protoplanetary disks through to the solar system, exoplanets and debris disks 13-17 May 2019 Victoria, British Columbia, Canada

### Financial Assistance

Travel support as well as childcare support will be available for those who need financial assistance to attend.

For more information, see the meeting website:

<http://go.nrao.edu/NewHorizons> [13]

Web: <http://go.nrao.edu/NewHorizons> [13]

Facebook: <https://www.facebook.com/vicplanetsys> [14]

Twitter: #VicPlanetSys

The meeting is jointly organized by NRC Herzberg and NRAO – as part of their roles within the North American ALMA Science Center (NAASC) and will have a broad scope, including planetary systems in formation within protoplanetary disks, minor objects in the solar system, debris disks and exoplanets. Experts will be asked to provide insights from all these fields to enhance our understanding of how planets form and evolve.

Although it is organized by the NAASC, the meeting is not ALMA-centric, with a strong focus on the impact of the New Horizons mission flyby of a Kuiper Belt Object in January 2019, as well as experts from the Transiting Exoplanet Survey Satellite and other facilities, who will be asked to provide a multi-chromatic picture of the current understanding in their fields. Invited speakers have been asked to provide broadly accessible talks.

The meeting will be held at the Victoria Conference Centre in the heart of picturesque Victoria, British Columbia, on Canada's Pacific coast. Local attractions include whale watching, wine tours, the world-famous Butchart Gardens, and the Dominion Astrophysical Observatory. Excellent beaches, diving, camping and hiking are all within a day's drive from Victoria.

#### Invited speakers

- Diana Dragomir (MIT Kavli Institute): TESS early results
- Brett Gladman (UBC): theory of planet formation
- Grant Kennedy (Warwick): debris disk constraints on planet formation
- Heather Knutson (Caltech): exoplanet atmospheric composition
- Emmanuel Lellouch (Obs de Paris): solar system objects, constraints on formation
- Karin Öberg (Harvard): protoplanetary disk composition and chemistry
- John Spencer (SWRI): New Horizons KBO flyby: first results
- Geronimo Villaneuva (NASA Goddard): cometary chemistry and early planet formation
- Zhaohuan Zhu (UNLV): Protoplanetary disk composition/chemistry

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#### INTERNATIONAL MEETING ON PALEOCLIMATE: CHANGE AND ADAPTATION

Coimbra, Portugal

18-19 July, 2019

The Directors of the Geosciences Centre (CGEO) and of the Centre for Earth and Space Research (CITEUC) of the University of Coimbra



(Portugal) invite members of your institution to participate in the International Meeting on "Paleoclimate: Change and Adaptation", at the University of Coimbra (Portugal), on the 18th-19th June, 2019. The goal is to promote an open discussion on paleoclimatic signals in order to improve our look at the present and to ground future perspectives. Research topics covers, without being limited to, the following areas:

T1 - Paleoclimates in the Solar System: external forcing and divergent evolutions

T2 - Climate changes in geological time: lessons to learn

T3 - Climate memory in the geological record

T4 - Climate changes and human adaptations throughout the Quaternary

T5 - Climatic events and human-environment interactions in the Holocene

A Special Issue of papers for the "International Meeting on Paleoclimate" meeting will be launched by Geosciences (ISSN 2076-3263; CODEN: GBSEDA), an interdisciplinary, international peer-reviewed open access journal of geoscience, future earth and planetary science published monthly online by MDPI.

Registration and additional information:

<https://paleoclimate2019.wixsite.com/paleoclimate2019> [15]

Maria Helena Henriques (CGEO) and Joao Fernandes (CITEUC)

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## EUROPEAN LUNAR SYMPOSIUM

We are pleased to announce that the abstract submission is now open for the 7th European Lunar Symposium (ELS), which will be held in Manchester, UK on 21-23 May 2019.

Please note that because of the continuing shutdown of the US Government, the primary website for ELS 2019 is currently unavailable. For now we have thus put together a temporary page where you can download the abstract template and submit your abstract, and which should provide sufficient information about registration processes and deadlines. Please bookmark this page as we will provide further updates as and when necessary. For any query, please e-mail:

[romain.tartese@manchester.ac.uk](mailto:romain.tartese@manchester.ac.uk) [16] and/or

[europeanlunarsymposium@gmail.com](mailto:europeanlunarsymposium@gmail.com) [17]

To submit your abstract please visit:

<http://sservi.nasa.gov/els2019> [18]

Please make a note of the following important dates:

Registration opens: 1 January 2019

Abstract submission closes: 12 February 2019

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Early-bird registration closes: 7 April 2019

To register for ELS, please visit:

[https://estore.manchester.ac.uk/conferences-and-events/faculty-of-](https://estore.manchester.ac.uk/conferences-and-events/faculty-of-science-engineering/school-of-electrical-and-electronic-engineering/european-lunar-symposium-2019/european-lunar-symposium-2019) [19]

science-engineering/school-of-electrical-and-electronic-engineering/  
european-lunar-symposium-2019/european-lunar-symposium-2019

The number of attendees is limited by room capacity, and we will take registration on a 1st come, 1st served basis.

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#### EUROPLANET COMETARY PLASMA SCIENCE WORKSHOP

Helsinki, Finland

March 28-29, 2019

We welcome contributions to the Europlanet sponsored cometary plasma science workshop hosted by the Rosetta Plasma Consortium (RPC).

The scope of the workshop covers all cometary plasma physics related topics, including the comet 67P/Churyumov-Gerasimenko and the Rosetta mission, other comets and missions as well as remote sensing, theory and laboratory studies.

The organizer of the workshop is the Aalto University (Espoo, Finland) and it will be held at the Finnish Meteorological Institute at the Kumpula Campus in Helsinki.

For further information and registration please follow this link:

<http://space.aalto.fi/cometplasma2019/> [20]

Deadline for the registrations is March 1, 2019.

Sincerely,

Local Organizing Committee:

Esa Kallio, Aalto University

Riku Jarvinen, Aalto University

Markku Alho, Aalto University

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THE DPS COMMITTEE REMINDS YOU TO VOTE IN THE AAS ELECTIONS

Don't forget to vote in AAS elections. The DPS is the largest AAS division.

The following DPS members are candidates for AAS Officers and At-Large Trustees:

President - Chick Woodward

Vice President - Stephen Unwin

Secretary - Alice K.B. Monet

At-Large Trustee - Hannah Jang-Condell

Balloting closes at 11:59 pm EST on 8 February 2019

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<https://aas.org/posts/news/2018/12/vote-2019-aas-election> [21]

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NEW DEADLINE FOR CASSINI SPECIAL ISSUE: 15 FEBRUARY

Dear colleagues and attendees of the Cassini Science Symposium  
in Boulder, August 2018:

Now that the government shutdown has ended, the deadline for submissions  
to the special Icarus issue on Cassini Mission Science Results (formerly 15  
January 2019) will be 15 February 2019. Both authors and reviewers may  
need to work a little faster to meet the planned schedule for publication this  
fiscal year.

Sincerely, the Editors

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JOBS, POSITIONS, OPPORTUNITIES

A) SWEDISH INSTITUTE OF SPACE PHYSICS IS LOOKING FOR THREE PHD STUDENTS

The positions are related to studies of space plasmas.

Applications are invited for PhD students to study space plasma regions  
of fundamental importance, such as magnetic reconnection sites, shocks,  
turbulence regions, ionospheres and kinetic processes there. We are  
looking for students in each of the following science topics:

1. Characterization of energy conversion and identification of the mechanisms of particle acceleration operating in turbulent layers formed at fronts of plasma jets, based on experimental data from the NASA multi-spacecraft MMS mission.
2. Understanding of electron heating and energetic electron generation at collisionless shocks, in particular resolving the mechanisms of the non-adiabatic processes using MMS data.
3. Understanding Saturn's ionosphere and the influence of the rings on the ionization balance using models and data acquired during the Grand Finale of the NASA Cassini mission.

Last Application Date: 2019-02-28

<http://www2.irf.se/Topical/Vacancies/> [22]

#### B) FULLY-FUNDED PHD ON SURFACE WIND MODELLING ON MARS

Research team based in UK and co-supervised by researchers in CalTech and SETI. Mars has widespread deposits of sand-sized sediments forming significant wind-blown dune fields of various typologies and scales.

Understanding the dynamics of surface atmospheric boundary layers is therefore paramount in examining Mars' landform dynamics.

Most research efforts have focussed on Mars atmospheric circulation at very large scales using Global Climate Models (GCMs). Temporal and

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spatial scales of these models are good first principles in understanding atmospheric-surface interactions, but are much too coarse when trying to understand surface landform dynamics.

Recent efforts have employed microscale computational fluid dynamics modelling to investigate atmospheric surface interactions and dune surface changes. Several state-of-the-art numerical atmospheric modelling tools will be used, including a Mars GCM, a regional Mars mesoscale climate model, and a computational fluid dynamics model (OpenFOAM). Geospatial and geomorphic analysis of relevant spacecraft imagery and other observational data will be used to constrain and validate the modelling results.

Overall objective: to combine macro- to meso- to micro-scale airflow modelling for a more realistic modelling of meter-scale airflow involved in the time-evolution of aeolian features on Mars.

Full info and deadlines:

<https://www.ulster.ac.uk/doctorscollege/find-a-phd/342205> [23]

## **C) EDUCATION AND PUBLIC OUTREACH COORDINATOR**

The CLEVER Planets (<http://cleverplanets.org/> [24]) research team and the Department of Earth, Environmental and Planetary Sciences (EEPS: <https://earthscience.rice.edu/> [25]) of Rice University is seeking a full-time education and public outreach coordinator. The position requires

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overseeing communication and coordination of multi-institutional, interdisciplinary NASA-funded project on planetary habitability, responding directly to the Principle Investigator (PI) and working with Co-Investigators (Co-I's) and their students and postdocs.

Responsibilities of this position include website maintenance (managing maintenance/updates/revisions to [cleverplanets.org](http://cleverplanets.org) website), science communication (e.g., coordinating with RiceNews and Media Relations office and the EEPS department to promote CLEVER Planets research and stories), organization of outreach activities and social media, as well as facilitating the collaboration needs between scientists and students through meetings, webinars, conferences and emails. In addition to working for the aforementioned project, some additional responsibilities will also include helping promote the strategic goals of the Department of Earth, Environmental and Planetary Sciences. Initial contract will be given for one year with the possibility for extension up to the entire duration of the proposed research activities.

Required educational qualification is a Bachelor of Science degree, although masters or higher-degree would be preferred, preferably in STEM fields such as Astronomy, Physics, Earth and Planetary Science or related fields. Experience in a university setting or with academic research is desirable. Experience with website design/maintenance using platforms such as WordPress/Squarespace, strong interpersonal, oral and written communication skills, particularly dissemination of science to public, and event organization and management is necessary. Some comfort with IT and IT-interfacing is desirable. Rice is an equal opportunity employer.



Interested applicants should send their completed application materials (1. cover letter, 2. resume, and 3. writing and web-designing examples) to [cleverplanets@rice.edu](mailto:cleverplanets@rice.edu) [26]. The review of the applications will begin immediately and the position will remain open until filled.

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Send submissions to:

Anne Verbiscer, DPS Secretary ([dpssec@aaas.org](mailto:dpssec@aaas.org) [27])

You are receiving this email because you are a DPS member.

To unsubscribe or update your information, please send your request to [privacy@aaas.org](mailto:privacy@aaas.org) [28]. The more general AAS privacy policy is available online at <https://aaas.org/about/policies/privacy-policy> [29]. Current and back issues of the DPS Newsletter can be found at <https://dps.aas.org/newsletters> [30]

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- [2] <https://meetingorganizer.copernicus.org/epsc-dps2019/provisionalprogramme>
- [3] [https://mail02.ndc.nasa.gov/owa/redir.aspx?C=-fbbagEbmmF7\\_MNBpXHhRBsMMuy7bwRx3I4eU57hwJr9wQDkpGzVCA..&URL=https%3a%2f%2fdps.aas.org%2fprizes%2fkuiper](https://mail02.ndc.nasa.gov/owa/redir.aspx?C=-fbbagEbmmF7_MNBpXHhRBsMMuy7bwRx3I4eU57hwJr9wQDkpGzVCA..&URL=https%3a%2f%2fdps.aas.org%2fprizes%2fkuiper)
- [4] <https://mail02.ndc.nasa.gov/owa/redir.aspx?C=oMGQR7hfDU40r3fg6K85k4qQv248UyvD1MG3BIDgQKv9wQDkpGzVCA..&URL=https%3a%2f%2fdps.aas.org%2fprizes%2furey>
- [5] <https://mail02.ndc.nasa.gov/owa/redir.aspx?C=OO7UQV5v07qS9KpswDwVN8ONFs9IpdI6NEZhyNFYmIH9wQDkpGzVCA..&URL=https%3a%2f%2fdps.aas.org%2fprizes%2fmasursky>
- [6] <https://mail02.ndc.nasa.gov/owa/redir.aspx?C=t7X3Rft7V67vQml45aisB2KX606TKtjlt3jynO9eOuf9wQDkpGzVCA..&URL=https%3a%2f%2fdps.aas.org%2fprizes%2fsagan>

- [7] [https://mail02.ndc.nasa.gov/owa/redir.aspx?C=Wgc08zBhHGZUYH-jllyC\\_PCw81rWrWSRAlu-1b3s7yH9wQDkpGzVCA..&URL=https%3a%2f%2fdps.aas.org%2fprizes%2feberhart](https://mail02.ndc.nasa.gov/owa/redir.aspx?C=Wgc08zBhHGZUYH-jllyC_PCw81rWrWSRAlu-1b3s7yH9wQDkpGzVCA..&URL=https%3a%2f%2fdps.aas.org%2fprizes%2feberhart)
- [8] [https://mail02.ndc.nasa.gov/owa/redir.aspx?C=GpooxdAarkyqo4BK9vL6\\_fLtmNosu8yP\\_WOijYW\\_nZ39wQDkpGzVCA..&URL=https%3a%2f%2fdps.aas.org%2fprizes%2fnomination-form](https://mail02.ndc.nasa.gov/owa/redir.aspx?C=GpooxdAarkyqo4BK9vL6_fLtmNosu8yP_WOijYW_nZ39wQDkpGzVCA..&URL=https%3a%2f%2fdps.aas.org%2fprizes%2fnomination-form)
- [9] [https://mail02.ndc.nasa.gov/owa/redir.aspx?C=raVdQo2dr0pYI7fkZNO4guD0gC-NfuqL\\_H57F2YVUMr9wQDkpGzVCA..&URL=https%3a%2f%2fdps.aas.org%2fprizes](https://mail02.ndc.nasa.gov/owa/redir.aspx?C=raVdQo2dr0pYI7fkZNO4guD0gC-NfuqL_H57F2YVUMr9wQDkpGzVCA..&URL=https%3a%2f%2fdps.aas.org%2fprizes)
- [10] [https://mail02.ndc.nasa.gov/owa/redir.aspx?C=FY1QY1jBznNYkiVIXVwB7NTO5WJMgDTaQyfwoA1\\_sU79wQDkpGzVCA..&URL=mailto%3adpsprize%40aas.org](https://mail02.ndc.nasa.gov/owa/redir.aspx?C=FY1QY1jBznNYkiVIXVwB7NTO5WJMgDTaQyfwoA1_sU79wQDkpGzVCA..&URL=mailto%3adpsprize%40aas.org)
- [11] <https://www.meetmatt-svr.net/Public/SessionDetailsPartial?id=13>
- [12] <http://www.asiaoceania.org/aogs2019/public.asp?page=abstract.htm>
- [13] <http://go.nrao.edu/NewHorizons>
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- [18] <http://sservi.nasa.gov/els2019>
- [19] <https://estore.manchester.ac.uk/conferences-and-events/faculty-of->
- [20] <http://space.aalto.fi/cometplasma2019/>
- [21] <https://aas.org/posts/news/2018/12/vote-2019-aas-election>
- [22] <http://www2.irf.se/Topical/Vacancies/>
- [23] <https://www.ulster.ac.uk/doctoralcollege/find-a-phd/342205>
- [24] <http://cleverplanets.org/>
- [25] <https://earthscience.rice.edu/>
- [26] <mailto:cleverplanets@rice.edu>
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- [28] <mailto:privacy@aas.org>
- [29] <https://aas.org/about/policies/privacy-policy>
- [30] <https://dps.aas.org/newsletters>