

# PSS Special Issue 2016

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## Special Issue Details

01 Jan 2017 — Submissions are closed



**According to EU-H2020 rules, VESPA participants will have to put their paper on an open access platform.**

**We recommend to post the accepted version of the paper on arXiv.org. The draft version can also be posted, and can be updated later on.**

**We also encourage all other authors to proceed the same way.**

## Title

### Enabling Open and Interoperable Access to Planetary Science and Heliophysics Databases and Tools

## Submission Timeline

- **The first submission date:** 11 Apr 2016 (date when the first paper will come in and be submitted to EES)
- **The submission deadline:** 15 Dec 2016 (date by which all papers should be submitted to the Guest Editors for review and the EES submission site will be closed)
- **The acceptance deadline:** 31 May 2017 (date by which all manuscripts should be fully reviewed and final decisions made on all manuscripts; and those failed to meet the deadline may be excluded.)

## Submission material and details

- Submission interface at [Elsevier](#).
- Select the special issue name: "SI:Open Access Solar System"
- [Guide for PSS authors](#).
- [LaTeX templates](#).

## Call Abstract

We are pleased to announce a Planetary and Space Science special issue entitled « Enabling Open and Interoperable Access to Planetary Science and Heliophysics Databases and Tools ». This special issue is linked to three scientific sessions held last year at the Japanese Geoscience Union Meeting (Session P-PS02, JpGU, May 2015, Tokyo, Japan), the European Planetary Science Conference (Session MT9, EPSC, Sept. 2015, Nantes, France) and the American Geophysical Union (Sessions IN33E and IN41E, AGU, Dec. 2015, San Francisco, California, USA).

The large amount of data generated by modern space missions calls for a change of organization of data distribution and access procedures. Although long term archives exist for telescopic and space-borne observations, high-level functions need to be developed on top of these repositories to make Planetary Science and Heliophysics data more accessible and to favor interoperability. Results of simulations and reference laboratory data also need to be integrated to support and interpret the observations. Interoperable software and interfaces has recently been developed in many scientific domains. The Virtual Observatory (VO) interoperable standards developed for Astronomy by the International Virtual Observatory Alliance (IVOA) can be adapted to Planetary Sciences, as demonstrated by the VESPA (Virtual European Solar and Planetary Access) team within the Europlanet-H2020-RI project. Other communities have developed their own standards: GIS (Geographic Information System) for Earth and planetary surfaces tools, SPASE (Space Physics Archive Search and Extract) for space plasma, PDS4 (NASA Planetary Data System, version 4) and IPDA (International Planetary Data Alliance) for planetary mission archives, etc, and an effort to make them interoperable altogether is starting, including automated workflows to process related data from different sources.

The goal of this special issue is to provide an overview of progresses in Planetary Sciences and Heliophysics interoperability frameworks, ongoing data management and distribution projects, and use cases of VO, GIS and SPASE applications with a focus on science activities and success stories.

Special Issue main dates:

- April 11th 2016: opening of the submission process
- September 5th 2016: closing of the submission process
- May 31st 2017: end of review process and acceptance deadline

Sincerely,  
 Baptiste Cecconi (Guest Editor)  
 Aaron Roberts (co-Guest Editor)  
 Yukio Yamamoto (co-Guest Editor)

## Related conference sessions

Date	Place	Conference Name
May 2015	Tokyo, Japan	Japanese Geoscience Union 2015 (JpGU-2015)
September 2015	Nantes, France	European Planetary Science Conference 2015 (EPSC-2015)
December 2015	San Francisco, California, USA	American Geophysical Union Fall Meeting 2015 (AGUFM-2015)

## Preliminary list of papers

Authors	Title	Paper number	Link to paper (DOI or arXiv)	Status
Baptiste Cecconi, Aaron Roberts, Yukio Yamamoto	Introduction to Special Issue			IN PRESS
Stéphane Erard et al	VESPA: a community-driven Virtual Observatory in Planetary Science	PSS_2016_358	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.05.013">10.1016/j.pss.2017.05.013</a> (arXiv) <a href="https://arxiv.org/abs/1705.09727">1705.09727</a> Your personalized Share Link (up to ~15/2/18): <a href="https://authors.elsevier.com/a/1WKRd7lblb2Gf">https://authors.elsevier.com/a/1WKRd7lblb2Gf</a>	IN PRESS
Vincent Génot, et al	Science data visualization in planetary and heliospheric contexts with 3DView	PSS_2016_277	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.07.007">10.1016/j.pss.2017.07.007</a> (Open Access)	IN PRESS
Alexis Rouillard, et al	A propagation tool to connect remote-sensing observations with in-situ measurements of heliospheric structures	PSS_2016_339	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.07.001">10.1016/j.pss.2017.07.001</a> (arXiv) <a href="https://arxiv.org/abs/1702.00399">1702.00399</a>	TRANSFERED
Vincent Génot, et al	TREPS, a tool for coordinate and time transformations in space physics	PSS_2016_320	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.06.002">10.1016/j.pss.2017.06.002</a> (Open Access)	IN PRESS
Alan Macfarlane (ESA)	Improving accessibility and discovery of ESA planetary data through the new Planetary Science Archive	PSS_2016_342		IN PRESS
Besse, et al. (ESA)	ESA's Planetary Science Archive: Preserve and Present Reliable Scientific Data sets	PSS_2016_341		IN PRESS
M. Barthélémy, et al (ESA)	ROSETTA: How to archive more than 10 years of mission	PSS_2016_105		IN PRESS
Trent Hare et al	Interoperability in Planetary Research for Geospatial Data Analysis	PSS_2016_289	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.04.004">10.1016/j.pss.2017.04.004</a>	IN PRESS
Baptiste Cecconi, et al	Juno-Ground-Radio Observation Support Tools	PSS_2016_360	online version (read-only)	CANCELED
Baptiste Cecconi, et al	VOEvent for planetary sciences	PSS_2016_279	online version (read-only)	CANCELED
Stéphane Erard et al	Planetary spectroscopy tools in the VO			CANCELED
Nicolas André et al	Virtual Planetary Space Weather Services offered by the Europlanet H2020 Research Infrastructure	PSS_2016_343	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.04.020">10.1016/j.pss.2017.04.020</a>	IN PRESS
Nicolas André et al	3DView use case: In-situ detection of geysers during Cassini Enceladus flybys			CANCELED
Nicolas André et al	Europlanet tools and data in support of the Juno mission			CANCELED

Ronan Modolo, et al	The LatHyS database for planetary plasma environment investigations. Comparison between MAVEN and Mars Express observations and simulation results - a case study.	PSS_2016_315	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.02.015">10.1016/j.pss.2017.02.015</a> submitted version	IN PRESS
R. Marco Figuera, et al.	<a href="https://doi.org/10.1016/j.pss.2017.09.007">Online characterization of planetary surfaces: PlanetServer, an open-source analysis and visualization tool (https://doi.org/10.1016/j.pss.2017.09.007)</a>	PSS_2016_353	(arXiv) <a href="https://arxiv.org/abs/1701.01726">1701.01726</a>	IN PRESS
F. Poulet et al.	PSUP: a Planetary SUrface Portal	PSS_2016_285	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.01.016">10.1016/j.pss.2017.01.016</a>	IN PRESS
<a href="#">Charles Acton</a>	A Look Towards the Future in the Handling of Space Science Mission Geometry	PSS_2016_245	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.02.013">10.1016/j.pss.2017.02.013</a> submitted version	IN PRESS
<a href="#">Ricardo Hueso et al.</a>	The Planetary Virtual Observatory and Laboratory (PVOL) and its integration into the Virtual European Solar and Planetary Access (VESPA)	PSS_2016_325	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.03.014">10.1016/j.pss.2017.03.014</a> (arXiv) <a href="https://arxiv.org/abs/1701.01977">1701.01977</a>	IN PRESS
<a href="#">Trompet Loïc, et al.</a>	Description, accessibility and usage of SOIR/VenusExpress atmospheric profiles of Venus distributed in VESPA (Virtual European Solar and Planetary Access).	PSS_2016_284	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.04.022">10.1016/j.pss.2017.04.022</a> submitted version	IN PRESS
Quantin-Nataf, Cathy et al.	MarsSI: Martian surface data processing Information System	PSS_2016_344		IN PRESS
Hughes, Steve, et al.	Enabling Interoperability in Planetary Sciences and Heliophysics: The Case for an Information Model	PSS_2016_338	(DOI) <a href="https://doi.org/10.1016/j.pss.2017.04.005">10.1016/j.pss.2017.04.005</a> submitted version	IN PRESS