

WP5/10 – Planetary Space Weather Services























PSWS Objectives

Review, test, improve and adapt methods and tools available within the partner institutes in order to make prototype planetary event and space weather services <u>operational</u> in Europe at the end of the programme

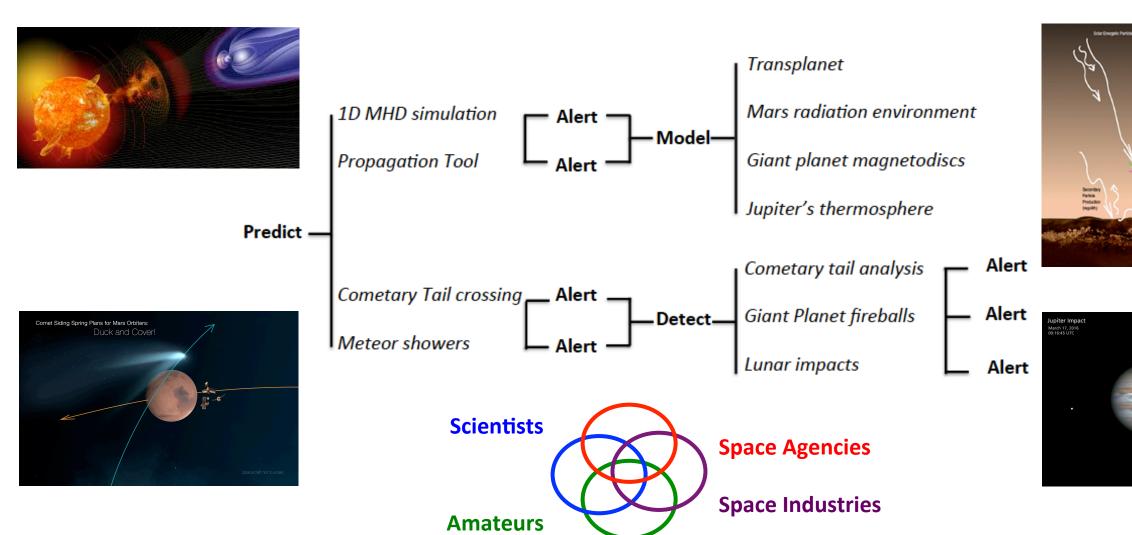


PSWS: 4 Domains, 12 Services

A. Prediction	A1. 1D MHD Solar Wind Prediction Tool (CNRS) A2. Propagation Tool (GFI Informatique)	Open Open
	A3. Meteor showers (OBSPARIS)	11/2017
	A4. Cometary tail crossings (UCL)	
B. Detection	B1. Lunar impacts (ABER)	11/2017
	B2. Giant planet fireballs (UPV/EHU)	Open
	B3. Cometary tails (UCL)	
C. Modelling	C1. Transplanet – Earth, Mars, Jupiter (CNRS)	Open
	C2. Mars radiation environment (ABER)	
	C3. Giant planet magnetodiscs (UCL)	11/2017
D. Alert	C4. Jupiter's thermosphere (UCL)	11/2017
	D. Alerts (OBSPARIS/IRAP)	11/2017



PSWS: 4 Domains, 12 Services

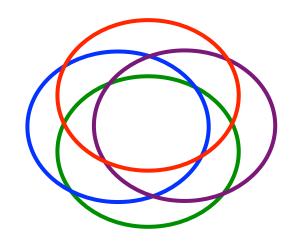




PSWS Users

Scientists

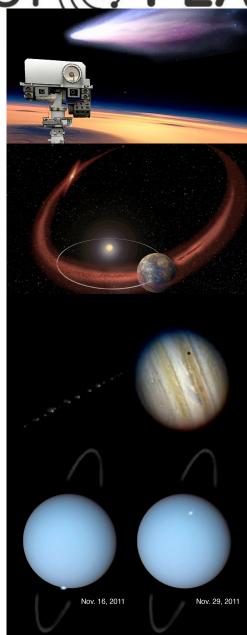
Amateurs



Space Agencies

Space Industries





Siding spring comet at Mars / Lunar flashes

MAVEN, MEX, MSL observations in 2014

All PSWS users impacted (e.g MAVEN Instruments turned-off for safety)

Comet Encke causes seasonal showers of meteor at Mercury

MESSENGER observations in 2013
All PSWS users impacted (e.g BepiColombo operation scenario)

Shoemaker-Levy 9 at Jupiter / Giant planet fireballs at Saturn

Dedicated campaign in 1994 / Detection by amateur astronomer A. Wesley All PSWS users impacted (e.g. Jupiter Watch network)

HST observation of shock-driven auroral emissions at Uranus

HST observations by Lamy et al. in 2012

All PSWS users impacted (e.g. Ice Giant mission design)



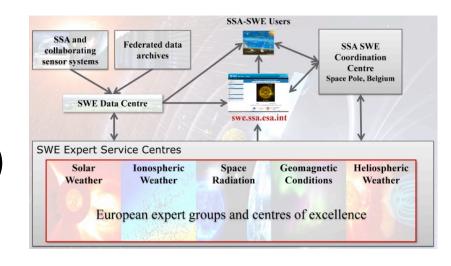
Opportunities from space missions

- MAVEN, orbiting Mars since 2014
- JUNO, just arrived at Jupiter, 07/2016
- Exomars, arriving at Mars, 09/2016
- Rosetta, end of mission 09/2016
- BepiColombo/JUICE in preparation



Liaisons/Collaborations with:

- Space Situation Awareness (SSA, ESA)
- Other EU-funded programmes (FP7, H2020)
 - IMPEx
 - HELCATS
 - 2 COMPET-5-2017, 1 COMPET-4-2017 projects
- Community Coordinated Modeling Center (CCMC, USA)







Topical Issue of Journal of Space Weather and Climate



SWSC – the Journal of the space weather Community





The journal is a link between all communities interested in space weather and space climate, including planetary space weather

- Editorial board of 21 associate editors, 2 of which specialized in planetary space weather.
- Editorial secretary: Jan Janssens
- Editorial advisor: Jürgen Watermann
- Editors in Chief: Anna Belehaki / Jean Lilensten
- Publisher: EDPS
- An enormous support from the Royal Observatory of Belgium





Open Access Journal

High visibility and widely open:

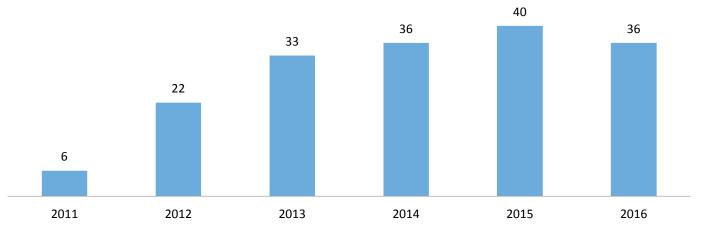
- Free access, indexed in ISI-Web of Sciences, ADS, DOAJ, Scopus, etc.
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Number of papers published:



2016: until October 14, 41 on December 31st

87 submissions to date in 2017







Downloads full text:

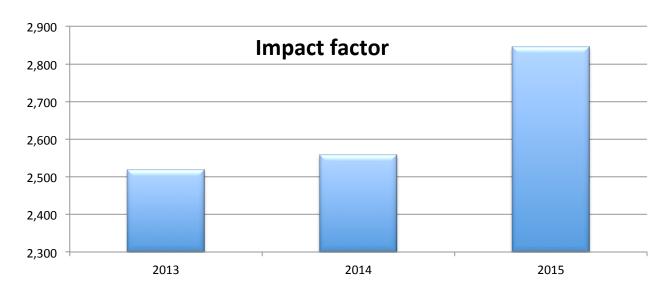
January 2015: 3606

September 2016: 12 026

In constant increase. Downloaded from the 5 continents.







June 2014: 2.519 June 2015: 2.558

June 2016: 2.846

Indexed in the categories:

ASTRONOMY & ASTROPHYSICS (rank in 2015: 23/62)
GEOCHEMISTRY & GEOPHYSICS (rank in 2015: 21/81)
METEOROLOGY & ATMOSPHERIC SCIENCES (rank in 2015:

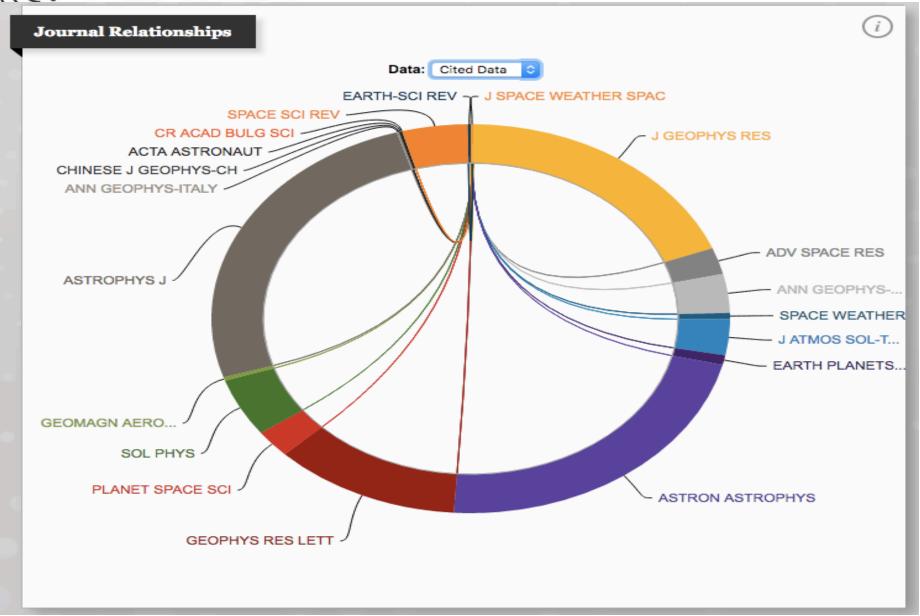
25/84)







Cited in:





Publication charges: 800 € including language editing

New Journal of Physics	1560€	
JGR	1000 € / 2500 € in open acces	
Plos One	1495\$	
Phys Rev X (APS)	2500\$	
Scientific Reports	1165 €	
AGU Open Access Publications	3500\$	
Icarus (Elsevier)	2750\$ (Hybrid journal)	



Topical Issue of Journal of Space Weather and Climate

Topical Editor in chief: Nicolas André

Topical editorial board: Manuel Grande + (in construction): 2

to 3 additionnal members

Deadline for first submission: November 1st, 2017

Deadline for submission: March 31st, 2018

Please fill the questionnaire circulating in the room to

mention your will to participate.

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