



Board Paper – Europlanet Society Executive Board Meeting 25th May 2020

Title	Southeast Europe Hub Committee Report
Date	20/05/2020
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Reporting Period	24 th November 2019 to 30 th April 2020

1. Committee Membership.

Committee Role	Name	Affiliation	Country
Chair	Prof. Ioannis A. Dagalos	National & Kapodistrian University of Athens (NKUA)	Greece
Vice Chair	Dr. Veneta Guineva	Bulgarian Academy of Sciences	Bulgaria
Vice Chair	Prof. Giuli Verbanac	University of Zagreb	Croatia
Vice Chair	Prof. Constantinos Constantinou	University of Cyprus	Cyprus
Vice Chair	Dr. Dan Alin Nedelcu	Romanian Academy	Romania
Vice Chair	Dr. Milan Radovanovic	Serbian Academy of Sciences and Arts	Serbia
Policy Officer	Dr. Eleni Chatzichristou	ERC Executive Agency	Belgium
Industry Officer	Dr. Ingmar Sandberg	SPARC	Greece
Early Career Officer	Dr. Christos Katsavrias	NKUA	Greece
Outreach Officer	Konstantina Moutsouroufi, MSc	NKUA	Greece
Diversity Officer	Marina Molla	9th Elementary School, Komotini	Greece
Amateur Astronomy Contact	Manos Kardasis, MSc	Hellenic Amateur Astronomy Association	Greece

2. Summary of Committee activities during the reporting period (500 words maximum).

- Establishment of an active Southeast Europe Hub scientist network. A Website has been developed and Hub members were asked for their consent on the display of their contact information on the website. The SEE Hub comprises six different countries and all of them are underrepresented in planetary sciences.
- Regular and satisfactory information dissemination regarding Europlanet's Schemes.
- The Committee endorsed the proposal of the Serbian colleagues for the support of the 12th Serbian-Bulgarian Astronomical Conference.

A variety of research activities have been pursued by scientists of the Southeast Europe Hub:

- Modelling of the icy giant radiation environment with the PLANETOCOSMICS simulation framework.
- Studies of the variability of the Radiation Belt Environment and development of a model for predicting radial diffusion coefficients.
- Investigation of the source of Ultra Low Frequency (ULF) waves in periodic oscillations of solar wind dynamic pressure.
- Studies of geomagnetic response to high-speed solar wind streams using satellite data (CRRES, THEMIS, Cluster) and numerical simulations, and studies related to solar cycle prediction and reconstruction (using experimental data and models, like ARMA and ARIMA models) as well as thermospheric-ionospheric response to high speed solar wind streams using GRACE, TIMED satellite data and GNNS data.
- In-situ exploration of Jupiter's radiation belt – contribution to a White Paper submitted in response to ESA's Voyage 2050 Call.
- Convection in the magnetosphere of Saturn during the Cassini mission derived from MIMI INCA and CHEMS measurements: Validation by the Voyager 2 heliopause crossing
- Auroral beads at Saturn and the driving mechanism: Cassini proximal orbits

- Plasma pressures in the heliosheath from Cassini ENA and Voyager 2 measurements.
- Energetic charged particle measurements from Voyager 2 at the heliopause and beyond.
- Estimations of FeO and TiO₂ in Mare Tranquillitatis (Moon) using hyperspectral data M3/Chandrayaan-1.
- Chemical composition of impact craters on Titan.
- Refractory Inclusions in the Unique Meteorite from Amundsen Glacier (AMU 17290) in Antarctica: Implications for Early Solar System Processes.
- Co-Investigating in SHIELD-DRIVE Science Center, part of an integrated multi-agency initiative from the National Aeronautics and Space Administration (NASA) and the National Science Foundation (NSF).

Outreach Activities

Space and planetary sciences have been promoted to the wider audience through public talks, tribunes, festivals, talks at schools and popular scientific articles, both in national and international press. Some examples:

- in Croatia "*Day and night at Faculty of Science*", University of Zagreb where among other topics, oral and poster presentations related to extrasolar planets, magnetosphere and comparative planetary atmospheres were given by students.
- in Greece minority school students were introduced to astronomy through the ILS "*Astronaut Academy*" which aims to inspire students around the night sky, space and exploration. Students used online Labs and Inquiry Learning apps.
- A Public Outreach School "*SpaceGates Academy*" was organized in Greece inviting outreach professionals to teach their techniques to students.
- Several Amateur Astronomy Clubs have organized on-line activities (e.g. Hellenic Amateur Astronomy Association) such as planetary-imaging online workshop, exoplanet data analysis workshop, discussion for future Astronomy students / early career scientists during the Covid-19 lockdown.

3. Anticipated activities by the Committee over the next reporting period (200 words maximum)

- Establishing regular bi-monthly meetings
- Organize a capacity building workshop, to be attended by scientists from all SEE Hub countries.
- Working towards increasing the number of planetary scientists involved with Europlanet Society

4. Any issues arising (particularly due to the Covid-19 outbreak)?

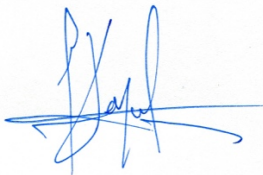
Several outreach activities have been cancelled or postponed.

Astronomy Labs and Planetarium presentations that concerned teaching astronomy with an interdisciplinary approach and inquiry based learning has been postponed due to the Covid-19 lockdown.

Most amateur astronomers' activities that had physical interactions have been cancelled due to COVID-19 measures. In contrary to professional observations personal observations are being held uninterrupted especially in cases of home telescope installations.

- 5. Input or decisions from the Executive Board requested by the Committee e.g. approvals, budgetary requests or guidance (NB: the Europlanet Executive Board will announce the decisions on the March 2020 round of the Committee Funding Scheme after the Board Meeting on 25th May).**

A request for support of the 12th Serbian-Bulgarian astronomical conference has been submitted.



**Ioannis A. Dagleis,
Committee Chair**

20 May 2020

Date