

Complex Systems Perspectives Pertaining to the Research of the Near-Earth Electromagnetic Environment G. Balasis, M. A. Balikhin, S. C. Chapman, G. Consolini, I. A. Daglis, R. V. Donner, J. Kurths, M. Palus, J. Runge, B. Tsurutani, D. Vassiliadis, S. Wing, R. Floberghagen, J. W. Gjerloev, J. Johnson, M. Materassi, T. Alberti, A. Z. Boutsi, C. Papadimitriou, and A. Strømme





ISSI International Team Objectives



https://www.issibern.ch/teams/nearearthelecenvi/

- The Team attempts to combine advanced mathematical tools and identify key directions for future methodological progress relevant to space weather forecasting using Swarm, SuperMAG, and other space/ground datasets.
- By utilizing a variety of complementary modern complex systems based approaches, an entirely novel view on nonlinear magnetospheric variability is obtained.





ISSI International Team Objectives



https://www.issibern.ch/teams/nearearthelecenvi/

- Taken together, the multiplicity of recently developed approaches in the field of nonlinear time series analysis offers great potentials for uncovering relevant yet complex processes interlinking different geospace subsystems, variables and spatio-temporal scales.
- The Team will provide a first-time systematic assessment of these techniques and their applicability in the context of geomagnetic variability.





ISSI International Team Members

- Georgios Balasis, *National Observatory of Athens*, Greece
- Michael A. Balikhin, *University of Sheffield*, UK
- Sandra C. Chapman, *University of Warwick*, UK
- Giuseppe Consolini, Istituto Nazionale di Astrofisica, Italy
- Ioannis A. Daglis, *National and Kapodistrian University of Athens*, Greece
- Reik V. Donner, Magdeburg-Stendal Univ. of Applied Sciences, Germany
- Jürgen Kurths, *Potsdam Institute for Climate Impact Research*, Germany
- Milan Palus, Czech Academy of Sciences, Czechia
- Jakob Runge, *DLR Institute for Data Science Jena*, Germany
- Bruce Tsurutani, JPL California Institute of Technology, USA
- Dimitris Vassiliadis, *INNOVIM*, USA
- Simon Wing, Johns Hopkins University APL, USA





ISSI International Team Members

- Rune Floberghagen, *European Space Agency*, Italy
- Jesper W. Gjerloev, Johns Hopkins University APL, USA
- Jay Johnson, Andrews University, USA
- Massimo Materassi, Istituto dei Sistemi Complessi, Italy
- Tommaso Alberti, Istituto Nazionale di Astrofisica, Italy
- Adamantia Zoe Boutsi, *National Observatory of Athens*, Greece
- **Constantinos Papadimitriou**, *National Observatory of Athens*, Greece
- Anja Strømme, *European Space Agency*, Italy



