Name: Boris M. Maletckii

Email: maletckii@ipgp.fr

Age: 27

Education:

2020–present: Ph.D. student, Université Paris Cité, Institut de Physique du Globe de Paris, Department of Planetary and Space Sciences (Paris, France);

2018–2020: MS, Irkutsk State University, Faculty of

Physics, Department of Radio Physics;

2014-2018: BS, Irkutsk State University, Faculty of

Physics, Department of Radio Physics.

Work experience

2018–2020: Engineer-programmer, Institute of Solar-Terrestrial Physics (Irkutsk, Russia)

Principal research interests

Ionosphere, Solar-Terrestrial Relationship, Travelling Ionospheric Disturbances, Natural Hazards, Solar Flares.

Multi-instrumental studies, GNSS, Satellite Missions (Swarm, DMSP, CSES, Jason-2/3, COSMIC-2, ICON). Ionospheric data processing (TEC, Ne, Ni, NMD).

Awards and Achievements

- Centre national d'études spatiales Ph.D. fellowship, 2020
- Diploma for academic excellence and research activities from the ISU Rector I.V.Bychkov, 2020
- Diploma for academic excellence and research activities from the dean of the Physics Faculty of ISU Budney N.M., 2020
- Participant in ASTRA winter school of Auroral Phenomena, 2019
- Academic Exchange in Christian-Albrecht University in Kiel, Faculty of Engineering, Department of Computer Science, Real-Time and Embedded Systems, 2019

Publications

• Maletckii, B., & Astafyeva, E. (2022). Near-real-time analysis of the ionospheric response to the 15 January 2022 Hunga Tonga-Hunga Ha'apai volcanic

- eruption. *Journal of Geophysical Research: Space Physics*, 127, e2022JA030735. https://doi.org/10.1029/2022JA030735
- Maletckii, B., Astafyeva, E. Determining spatiotemporal characteristics of coseismic travelling ionospheric disturbances (CTID) in near real-time. *Sci Rep* 11, 20783 (2021). https://doi.org/10.1038/s41598-021-99906-5
- Maletckii, B.; Yasyukevich, Y.; Vesnin, A. Wave Signatures in Total Electron Content Variations: Filtering Problems. *Remote Sens.* 2020, 12, 1340. https://doi.org/10.3390/rs12081340

As co-author:

- He, J., Astafyeva, E., Yue, X., Ding, F., & Maletckii,
 B. (2023). The giant ionospheric depletion on 15 January 2022 around the Hunga Tonga-Hunga Ha'apai volcanic eruption. Journal of Geophysical Research: Space Physics, 128, e2022JA030984. https://doi.org/10.1029/2022JA030984
- Astafyeva, E., <u>Maletckii, B.</u>, Mikesell, T. D., Munaibari, E., Ravanelli, M., Coisson, P., et al. (2022). The 15 January 2022 Hunga Tonga eruption history as inferred from ionospheric observations. *Geophysical Research Letters*, 49, e2022GL098827. https://doi.org/10.1029/2022GL098827
- Astafyeva, E., Yasyukevich, Y. V., Maletckii, B., Oinats, A., Vesnin, A., Yasyukevich, A. S., et al. (2022). Ionospheric disturbances and irregularities during the 25–26 August 2018 geomagnetic storm. *Journal of Geophysical Research: Space Physics*, 127, e2021JA029843. https://doi.org/10.1029/2021JA029843
- Yasyukevich Yu.V., Kiselev A.V., Zhivetiev I.V., Edemskiy I.K., Syrovatskii S.V., <u>Maletckii B.M.</u>, Vesnin A.M. SIMuRG: System for Ionosphere Monitoring and Research from GNSS. *GPS Solut* **24**, 69 (2020). https://doi.org/10.1007/s10291-020-00983-2
- Rubtsov A.V., <u>Maletckii B.M.</u>, Danilchuk E.I., Smotrova E.E., Shelkov A.D., Yasyukevich A.S. lonospheric disturbances over Eastern Siberia during April 12–15, 2016 geomagnetic storms. *Solar-Terrestrial Physics*. 2020. Vol. 6. Iss. 1. P. 75 85. DOI: 10.12737/szf-61202007

Conferences

- Maletckii, B., Astafyeva, E. (Oral) The Near Real Time Analysis of Ionospheric Disturbances in a near field by GNSS data. *COSPAR 2022*. Athens, Greece.
- Maletckii, B., Astafyeva, E. (Oral) Ionospheric Near Real time look on Hunga Tonga-Hunga Ha'apai eruption via GNSS. *URSI AT-AP-RASC 2022*. Gran Canaria, Spain
- Maletckii, B., Astafyeva, E. (Oral) The Near Real time analysis of Hunga Tonga-Hunga Ha'apai eruption in the ionosphere by GNSS. *EGU Meeting 2022*. Vienna, Austria
- B. Maletckii and E. Astafyeva. (Poster) Near-Real-Time Analysis of Spatio-Temporal Characteristics of Ionospheric Disturbances of Different Origins. *AGU Fall Meeting 2021*. New Orleans, USA
- Maletckii, B.; Yasyukevich, Y.; Vesnin, A. (Oral), XXVI Russian open conference "Radio waves Propagation", 2019
- Maletckii, B.; Yasyukevich, Y.; Vesnin, A. (Oral), Baikal Young Scientists' International School on Fundamental Physics, 2019
- Maletckii, B.; Vesnin, A. (Poster), 17th All-Russia
 Open Conference with International Participation
 "Current Problems in Remote Sensing of the Earth from Space", 2019

Programming

Python, C, Matlab

Languages

Full Professional Proficiency in English, Limited Working Proficiency in French, Native Russian

Personal qualities

Serious, Open-minded, Hardworking, Creative