

СПИСЪК НА НАУЧНИТЕ ПУБЛИКАЦИИ

за участие в конкурса за заемане на академична длъжност „доцент“ по професионално направление 4.4. Науки за Земята, научна специалност „Физика на океана, атмосферата и околоземното пространство“ – секция „Физика на атмосферата“, обявен в Държавен вестник, бр. 54 от дата 4.07.2025г.

на

гл. ас. д-р Румяна Цветанова Божилова

I. ПУБЛИКАЦИИ ПО КОНКУРСА

A1. Дисертационен труд за присъждане на образователна и научна степен „доктор“

Румяна Божилова, 2021. Емпирично моделиране на йоносферните характеристики над България. *Дисертация за придобиване на образователната и научна степен “Доктор” по специалност „Физика на океана, атмосферата и околоземното пространство“*

B4. Хабилитационен труд – научни публикации в издания, които са реферирани и индексирани в световноизвестни бази данни с научна информация*

B4-1 **Bojilova R., 2017.** Ionospheric anomalies over Bulgaria during geomagnetic storms and their impact on some communications. *Journal of Physics and Technology*, 1(1), 18-22, ISSN 2535-0536.

B4-2 **Румяна Божилова, 2017.** Йоносферни аномалии по време на геомагнитни бури, предизвикващи смущения в някои видове комуникации. *Сборник с доклади от ШЕСТА НАЦИОНАЛНА КОНФЕРЕНЦИЯ С МЕЖДУНАРОДНО УЧАСТИЕ „Металознание, хидро- и аеродинамика, национална сигурност '2017“*, 299-303, ISSN 1313-8308.

B4-3 **Bojilova R. and Mukhtarov P., 2018.** Influence of solar and geomagnetic activity on the ionosphere over Bulgaria. *Sun and Geosphere*, 13(1), 15-19, online ISSN 2367-8852, [DOI: 10.31401/SunGeo.2018.01.02](https://doi.org/10.31401/SunGeo.2018.01.02).

B4-4 **Bojilova, R., 2018.** IONOSPHERIC ANOMALIES OVER BULGARIA DURING TWO GEOMAGNETIC STORMS. *Bulgarian Geophysical Journal*, 41, 14-20, ISSN 1311-753X (print)/ ISSN 2683-1317 (online).

B4-5 **Bojilova R. and Mukhtarov P., 2019.** Response of the electron density profiles to geomagnetic disturbances in January 2005. *Studia Geophysica et Geodaetica*, 63(3), 436-454, <https://doi.org/10.1007/s11200-019-0510-6>.

B4-6 **R. Bojilova, 2019.** INFLUENCE OF GEOMAGNETIC ACTIVITY ON THE IONOSPHERE CRITICAL FREQUENCIES. *Bulgarian Geophysical Journal*, 42, 3-9, ISSN 1311-753X (print)/ ISSN 2683-1317 (online), [DOI: 10.34975/bgi-2019.42.1](https://doi.org/10.34975/bgi-2019.42.1).

- B4-7 **Bojilova R.**, Mukhtarov P., **2019**. Global and Regional Response of the Total Electron Content to Geomagnetic Storms Occurred in January 2005. Proceedings of Eleventh Workshop “Solar Influences on the Magnetosphere, Ionosphere and Atmosphere”, 71-76, ISSN 2367-7570, [DOI:10.31401/WS.2019.proc](https://doi.org/10.31401/WS.2019.proc).
- B4-8 P. Mukhtarov, **Bojilova R.**, Andonov B., **2021**. The second G3 (Strong) geomagnetic storm in 25th solar cycle on 3-4 November 2021. *Bulgarian Geophysical Journal*, 44, 43-52, ISSN 1311-753X(print)/ ISSN 2683-1317 (online), [DOI: 10.34975/bgj-2021.44.4](https://doi.org/10.34975/bgj-2021.44.4).
- B4-9 **Bojilova R.** and Mukhtarov P., **2020**. LOCAL TIME DEPENDENCE OF THE IONOSPHERIC RESPONSE TO GEOMAGNETIC DISTURBANCES OVER BULGARIA. International Multidisciplinary Scientific GeoConference: SGEM, 20(1.2), 615-622, [DOI:10.5593/sgem2020/1.2/s05.078](https://doi.org/10.5593/sgem2020/1.2/s05.078)
- B4-10 Mošna Z., Barta V., Berényi K.A., Mielich J., Verhulst T., Kouba D., Urbář J., Chum J., Knížová P.K., Marew H., Podolská K. and **Bojilova R.**, **2024**. The March and April 2023 ionospheric storms in the period of the Solar Cycle 25. *Frontiers in Astronomy and Space Sciences*, 11, 1462160, <https://doi.org/10.3389/fspas.2024.1462160>.
- B4-11 **Bojilova R.**, **2024**. FIRST RESULTS FOR INFLUENCE OF TWO GEOMAGNETIC STORMS DURING 10-12 MAY 2024 ON MID-LATITUDE IONOSPHERE. *Comptes rendus de l'Academie bulgare des Sciences*, 77(10), 1485-1492, <https://doi.org/10.7546/CRABS.2024.10.08>.

Г7. Научни публикации в издания, които са реферирани и индексирани в световноизвестни бази данни с научна информация*

- Г7-1 **Bojilova R.**, Mukhtarov P, **2023**. Comparative analysis of global and regional ionospheric response during two geomagnetic storms on 3 and 4 February 2022. *Remote Sensing*, 15(7), 1739, <https://doi.org/10.3390/rs15071739>.
- Г7-2 **Bojilova R.** and Kilifarska N., **2017**. System for automated downloading of geomagnetic data from INTERMAGNET portal. *Journal of Physics and Technology*, 1(1), 23–28, ISSN 2535-0536.
- Г7-3 **Румяна Божилова**, **2017**. Автоматизирана система за събиране на геофизични данни – ПРИЛОЖЕНИЕ. Сборник с доклади от 45-та НАЦИОНАЛНА КОНФЕРЕНЦИЯ ПО ВЪПРОСИТЕ НА ОБУЧЕНИЕТО ПО ФИЗИКА „Експериментът – основа на образованието по физика“, 55-59, ISBN 978-954-580-367-3.
- Г7-4 Guineva V., Werner R., **Bojilova R.**, Raykova L., Despirak I.V., **2021**. Mid-latitude positive bays during substorms by quiet and disturbed conditions. *Comptes rendus de l'Academie bulgare des Sciences*, 74(8), 1185-1193, [DOI:10.7546/CRABS.2021.08.10](https://doi.org/10.7546/CRABS.2021.08.10).
- Г7-5 Guineva V., Werner R., Atanassov A., **Bojilova R.**, Raykova L., Valev D., **2021**. Characteristics of the midlatitude effects of different substorms. *Proceedings of the Thirteenth Workshop "Solar Influences on the Magnetosphere, Ionosphere and Atmosphere"*, 135-140, ISSN 2367-7570, [DOI: 10.31401/WS.2021.proc](https://doi.org/10.31401/WS.2021.proc).

- Г7-6 Werner R., Guineva V., Atanasov A., **Bojilova R.**, Raykova L., Valev D., Lubchich A., Despirak I., **2021**. Calculation of the horizontal power perturbations of the Earth surface magnetic field. *Proceedings of Thirteenth Workshop “Solar Influences on the Magnetosphere, Ionosphere and Atmosphere”*, 159-164, ISSN 2367-7570, [DOI: 10.31401/WS.2021.proc](https://doi.org/10.31401/WS.2021.proc).
- Г7-7 Guineva V., Despirak I., Werner R., **Bojilova R.**, Raykova L., **2021**. Study of mid-latitude positive bays during substorms over Scandinavia – a case study. *Proceedings of the XLIV Annual Seminar “Physics of Auroral Phenomena”*, 44(1), 28-31, ISSN 2588-0039, [DOI: 10.51981/2588-0039.2021.44.006](https://doi.org/10.51981/2588-0039.2021.44.006).
- Г7-8 Guineva V., I. Despirak, R. Werner, **R. Bojilova**, L. Raykova, **2021**. Mid-latitude effects of “expanded” geomagnetic substorms: a case study. *EPJ Web of Conferences- XII International Conference “Solar-Terrestrial Relations and Physics of Earthquake Precursors”*, 254, 01004, 1-10, eISSN: 2100-014X, [DOI:https://doi.org/10.1051/epjconf/202125401004](https://doi.org/10.1051/epjconf/202125401004).
- Г7-9 Veneta Guineva, Rolf Werner, Andris Lubchich, Atanas Atanasov, **Rumiana Bojilova**, Lyubomira Raykova, Dimitar Valev and Irina Despirak, **2021**. Development of a substorms catalog including the MPB observed at Panagjurishte station, Bulgaria. *EPJ Web of Conferences- XII International Conference “Solar-Terrestrial Relations and Physics of Earthquake Precursors”*, 254, 01002, 1-9, eISSN: 2100-014X [DOI:https://doi.org/10.1051/epjconf/202125401002](https://doi.org/10.1051/epjconf/202125401002).
- Г7-10 Guineva V., Werner R., Atanasov A., **Bojilova R.**, Raykova L., Valev D., Despirak I., Kleimenova N., **2021**. Construction of a catalog of the magnetic variations by data of the Bulgarian station Panagjurishte. *Proceedings of the Seventeenth International Scientific conference “Space, Ecology, Safety”*, SES2021, 20-22.10.2021, Sofia, Bulgaria, 39-44, ISSN 2603-3313 (print)/ 2603-3321 (online).
- Г7-11 Werner R., Guineva V., Lubchich A., Despirak I., **Bojilova R.**, Valev D., Atanasov A., Raykova L., **2021**. Determination of power perturbations of the horizontal magnetic field on the Earth surface. *Proceedings of Seventeenth International Scientific Conference: “Space, Ecology, Safety”*, SES2021, 20-22.10.2021, Sofia, Bulgaria, 34-38 , ISSN 2603-3313 (print)/ 2603-3321 (online).
- Г7-12 Guineva V., Werner R., **Bojilova R.**, Atanasov A., Raykova L., Valev D., **2022**. Maps of the Spatial Distribution of the Variations in the X and Y Components of the Magnetic Field at European Midlatitudes during Substorms: A Case Study. *Proceedings of Fourteenth Workshop “Solar Influences on the Magnetosphere, Ionosphere and Atmosphere”*, 22-28, ISSN 2367-7570, [DOI: 10.31401/WS.2022.proc](https://doi.org/10.31401/WS.2022.proc).
- Г7-13 Guineva V., Werner R., Atanasov A., **Bojilova R.**, Raykova L., Valev D., **2022**. Assessment of some substorm parameters based on the midlatitude positive bays and the MPB index maxima. *Proceedings of the Eighteenth International Scientific conference “Space, Ecology, Safety”*, SES2022, 19-21.10.2022, Sofia, Bulgaria, 33-38, ISSN 2603-3313 (print)/ ISSN 2603-3321 (online).

- Г7-14 Werner, R., Guineva, V., Despirak, I. V., Lubchich, A. A., Setsko, P. V., Atanasov, A., **Bojilova R.**, Raykova L., Valev D., **2023**. Statistical Studies of Auroral Activity and Perturbations of the Geomagnetic Field at Middle Latitudes. *Geomagnetism and Aeronomy*, 63(4), 473–485, <https://doi.org/10.1134/S0016793223600303>.
- Г7-15 Werner, R., Guineva, V., Despirak, I., Lyubchich, A., **Bojilova, R.**, Raykova, L., Atanasov A., Valev D., **2023**. Statistical study of geomagnetic disturbances at European auroral and high latitudes. *Comptes rendus de l'Academie bulgare des Sciences*, 76(4), 571–579, <https://doi.org/10.7546/CRABS.2023.04.09>.
- Г7-16 Guineva V., Werner R., **Bojilova R.**, Atanasov A., Raykova L., Valev D., **2023**. Spatial distribution of the magnetic disturbances at European midlatitudes during substorms: case study. *Proceedings of Science (PoS), 11th International Conference of the Balkan Physical Union (BPU11)*, Vol. 427, 188, DOI: <https://doi.org/10.22323/1.427.0188>.
- Г7-17 Guineva V.H., Werner R., Atanasov A.M., **Bojilova R.Ts.**, Raykova L.N., Valev D.T., **2023**. Determination of the parameters of midlatitude positive bays caused by magnetospheric substorms. *Proceedings of Fifteenth Workshop “Solar Influences on the Magnetosphere, Ionosphere and Atmosphere”*, 56-63, ISSN 2367-7570, DOI: [10.31401/WS.2023.proc](https://doi.org/10.31401/WS.2023.proc).
- Г7-18 V. Guineva, Werner R., **Bojilova R.**, Raykova L., Atanasov A., Valev D., **2024**. A methodology to estimate the MPB parameters. *Proceedings of the XLVII Annual Seminar “Physics of Auroral Phenomena”*, 47, 16-19, ISSN:2588-0039, DOI:[10.51981/2588-0039.2024.47.003](https://doi.org/10.51981/2588-0039.2024.47.003).
- Г7-19 Guineva, V., Werner, R., **Bojilova, R.**, Raykova, L., Atanasov, A., Valev, D., **2024**. STUDY OF THE MIDLATITUDE POSITIVE BAYS AT THE MAGNETIC STATION PANAGYURIShte DURING THE DESCENDING PHASE OF SOLAR CYCLE 24. *Proceedings of the Twentieth Anniversary International Scientific conference “Space, Ecology, Safety”*, SES2024, 22-25.10.2024, Sofia, Bulgaria, 48-54, ISSN: p-ISSN 2603 – 3313 / e-ISSN 2603 – 3321.
- Г7-20 Guineva V., Werner R., **Bojilova R.**, Raykova L., Atanasov A., Valev D., **2024**. Analysis of Substorms Related to Strong MPB at Panagjurishte Station in 2022. *Proceedings of Sixteenth Workshop “Solar Influences on the Magnetosphere, Ionosphere and Atmosphere”*, ISSN: 2367-7570, 56-62, DOI:[10.31401/WS.2024.proc](https://doi.org/10.31401/WS.2024.proc).
- Г7-21 Guineva, V., Werner, R., Despirak, I., Klejmenova, N., Lubchich, A., Setsko, P., Atanasov A., **Bojilova R.**, Raykova L., Valev D., **2023**. Results from the bulgarian-russian project on investigation of the geomagnetic disturbances propagation to mid-latitudes and their interplanetary drivers identification for the development of mid-latitude space weather forecast. *Proceedings of the Nineteenth International Scientific conference “Space, Ecology, Safety”*, SES2023, 24-26.10.2023, Sofia, Bulgaria, 47-56, ISSN 2603-3313 (print)/ 2603-3321 (online).
- Г7-22 **Bojilova R.**, Mukhtarov P., **2023**. Investigation of Dst variations in X component at mid-latitudes during three geomagnetic storms on February 2022. *Proceedings of Science (PoS), 11th International Conference of the Balkan Physical Union (BPU11)*, Vol. 427, 185, DOI:<https://doi.org/10.22323/1.427.0185>.

- Г7-23 **Bojilova R.** and Mukhtarov P., **2023**. Investigation of Dst Variations in X Component at Midlatitudes during Geomagnetic Storm on February 3, 2022. *Comptes rendus de l'Academie bulgare des Sciences*, 76(2), 264-272, [DOI:10.7546/CRABS.2023.02.11](https://doi.org/10.7546/CRABS.2023.02.11).
- Г7-24 **Bojilova R.** and Atanasova M., **2024**. Post-seismic Ionosphere Effects after Croatian MW 6.4 Earthquake on December 29, 2020. *Comptes rendus de l'Academie bulgare des Sciences*, 77(5), 707-714, <https://doi.org/10.7546/CRABS.2024.05.08>.
- Г7-25 **Bojilova R.** and Atanasova M., **2024**. Ionospheric co-seismic effects after MW 5.9 earthquake in Greece on 29 March 2024. 12th *Congress of the Balkan Geophysical Society*, Vol. 2024, 1-5, EAGE Publications BV, <https://doi.org/10.3997/2214-4609.202449BGS5>.

*За ПН 4.4 се използват и квантилите (четвъртините) Q1, Q2, Q3 и Q4 съгласно метриката SJR (<https://www.scimagojr.com/>). При отчитане на публикация в списание, което се появява за съответната година и в квантилите на JCR и в квантилите на SJR, се използва по-високият от тези квантили.

#Дават се точки за „други“ научни публикации (за показатели В4 и Г7) в издания с научно рецензиране.“

20.08.2025г.

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/гл. ас. д-р Румяна Божилова /