# СПРАВКА

за изпълнение на минималните изисквания за заемане на академичната длъжност "доцент", дефинирани в Правилника за условията и реда за придобиване на научни степени и за заемане на академични длъжности в БАН, съответно на изискванията по чл. 1а, ал. 2
за участие в конкурс за академична длъжност „доцент" в професионално направление 4.4. Науки за Земята по научна специалност "Земен магнетизъм и гравиметрия"
от **гл. ас. д-р Методи Иванов Методиев**

Публикациите са представени по групи показатели на минималните изисквания[1] за заемане на академичната длъжност "доцент" като номерата им съответстват с изготвения списък на публикациите за участие в конкурса.

| **А** | **Дисертационен труд за присъждане на образователна и научна степен „доктор"** | | **50т.** |
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| 1 | **Методи Методиев** Регионални особености на динамиката на геомагнитното поле на територията на Балканския полуостров Дисертация за придобиване на образователната и научна степен "Доктор" по специалност „ Земен магнетизъм и гравиметрия " | | **50** |
| | | **Общо Показател А** | **50т.** |
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| **В** | **4. Хабилитационен труд – научни публикации (не по- малко от 10) в издания, които са реферирани и индексирани в световноизвестни бази данни с научна информация Scopus, Web of Science, ERIH+** | **Брой съавтори n** | **60/n за всяка публикация** |
| 1 | Petya Trifonova, Stela Simeonova, Dimcho Solakov, **Metodi Metodiev** (2012) Exploring Seismicity in Bulgaria Using Geomagnetic and Gravity Data, Compt. Rend. Bulg. Acad. Sci., v.65, N5, 653-661 | 4 | **15** |
| 2 | D. Solakov, **M. Metodiev**, S. Simeonova and P. Trifonova, Population exposure index – an element of seismic risk assessment DOI: 10.3997/2214-4609.201902659, 10th Congress of the Balkan Geophysical Society, Sofia, 2019 | 4 | **15** |
| 3 | P. Stavrev, S. Dimovski, A. Kisyov, P. Trifonova and **M. Metodiev**, Regional mapping of geophysical and geological data in the process of their integrated analysis and interpretation, DOI: 10.3997/2214-4609.201902632, 10th Congress of the Balkan Geophysical Society, Sofia, 2019 | 5 | **12** |
| 4 | Solakov, D., Trifonova, P., **Metodiev, M**., Simeonova, S.. GIS based analysis for evaluation of human risk due to earthquakes in Bulgaria. International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, 20, 1.2, 2020, ISBN:978-619-7603-05-7, ISSN:1314-2704, DOI:10.5593/sgem2020/1.2/s05.072, 567-574. | 4 | **15** |

[1] Минимални изисквани точки по групи показатели за академична длъжност „доцент" в Направление 4.4 Науки за земята: показател А- 50т., показател В-100т., показател Г- 220т., показател Д – 60т., показател Е- 30т.

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| 5 | Dimitrova, L., Georgieva, G., Trifonova, P. Oinakov E., Protopopova V. and **Metodiev M**. (2020) Seismic sources and Earth structure in the transition zone between Fore-Balkan unit and Moesian platform, NE Bulgaria, Acta Geodaetica et Geophysica, pp. 1-20 https://doi.org/10.1007/s40328-020-00288-3 | 6 | **10** |
| 6 | Trifonova, P., Solakov, D., Simeonova, S., **Metodiev, M**., & Balan, S. F. (2021). Seismic scenario and people exposure for Blagoevgrad region, Bulgaria, Volume 361, Pages 293 – 305, doi:10.1007/978-3-030-70190-1_20 | 5 | **12** |
| 7 | Petya Trifonova, **Metodi Metodiev** Geomagnetic Events Recorded in PAG Observatory During the First Year of Solar Cycle 25. Conference Proceedings, 11th Congress of the Balkan Geophysical Society, Oct 2021, Volume 2021, p.1 - 5, 2021, DOI:https://doi.org/10.3997/2214-4609.202149BGS20 | 2 | **30** |
| 8 | Petya Trifonova, Christan Tzankov, **Metodi Metodiev**. Importance of Using a Reference Base Station in Geomagnetic Surveys - Case Studies from Bulgaria. Conference Proceedings, 11th Congress of the Balkan Geophysical Society, Oct 2021, Volume 2021, p.1 - 5, 2021, DOI:https://doi.org/10.3997/2214-4609.202149BGS21 | 3 | **20** |
| 9 | Solakov, D.,Simeonova, S., Raykova P., **Metodiev, M**., Earthquake scenarios for the city of Plovdiv International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, 21, 1.1, 2021, DOI:10.5593/sgem2021/1.1/s05.085, 459-466 | 4 | **15** |
| 10 | Petya Trifonova, Liliya Dimitrova, **Metodi Metodiev**, Maria Chamati, Plamena Raykova. EARTHQUAKE EFFECTS RECORDED ON MAGNETOGRAM - WHERE, WHEN AND WHY. nternational Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, 21, 1.1, 2021, , DOI:10.5593/sgem2021/1.1/s05.084, 451-458 | 5 | **12** |
| | | **Общо Показател В** | **156 т.** |
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| **Г** | **7. Научни публикации в издания, които са реферирани и индексирани в световноизвестни бази данни с научна информация** | | **40/n** |
| 1 | **M. Metodiev**, P. Trifonova (2016) Geophysical analysis of the Eastern Rhodope region, Compt. Rend. Acad.Sci, v. 69, № 5, 615-621 | 2 | **20** |
| 2 | **Metodiev, M.** and Trifonova, P., (2017) Bulgarian Geomagnetic Reference Field (BulGRF) for 2015.0 and secular variation prediction model up to 2020, Annales Geophysicae, 35, 5, pp 1085--1092, https://www.ann-geophys.net/35/1085/2017/, DOI 10.5194/angeo-35-1085-2017 | 2 | **20** |
| 3 | **Metodiev, M**., Trifonova, P.. GEOMAGNETIC FIELD ELEMENTS OF THE BULGARIAN TERRITORY FOR 2020.0 EPOCH. International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, 20, 1.2, 2020, ISSN:1314-2704, DOI:10.5593/sgem2020/1.2/s05.069, 543-550. | 2 | **20** |
| 4 | **Metodi Metodiev**. Local geomagnetic activity recorded on the Bulgarian territory for the Solar cycle 24. International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM 2021, DOI 10.5593/sgem2021/1.1/s05.093, 509-518 | 1 | **40** |

| Г | 8. Научна публикация в нереферирани списания с научно рецензиране или в редактирани колективни томове | | 20/n |
|---|---|---|---|
| 1 | P. Trifonova, Cholakov I., Redzhov S., **Metodiev M**., Radev I. (2011) Sofia Airport Geomagnetic Survey, Bulg. Geophysical Journ., 37, 105-112 | 5 | **4** |
| 2 | P. Trifonova, **M. Metodiev** , I. Cholakov, S. Redzhov & I. Radev (2011) Geomagnetic Study for Determination of the Compass Calibration Site Suitability at the Sofia Airport, Proceedings of the 6th Congress of the Balkan Geophysical Society - Budapest ISBN 978-90-73834-16-3, EAGE 2011. | 5 | **4** |
| 3 | Solakov, Dimcho, Stela Simeonova, Irena Alexandrova, Petya Trifonova, **Metodi Metodiev** (2011) Verification of seismic Scenario Using Historical Data-Case Study For The City Of Plovdiv, in Grutzner C., Perez-Lopes R., Steeger T. F., Papanikolaou, Reicherter K., Silva P. G., Vott (Edt.) Proceedings, Vol.2, 2nd INQUA-IGCP 567 International Workshop on Active Tectonics, Earthquake Geology, ISBN: 978-960-466-093-3, p. 239-242 | *5* | **4** |
| 5 | P. Trifonova, D.Solakov, S. Simeonova, **M. Metodiev** (2012) Black sea earthquake safety net(work) – ESNET, Bulgarian Geophys. Journal, vol.38, p. 44-50. | 2 | **10** |
| 4 | Solakov, Dimcho, Stela Simeonova, Irena Alexandrova, Petya Trifonova, **Metodi Metodiev** (2011) Utilizing historical data for urban area (the city of Ruse) seismic scenario validation, Proceedings of the 6th Congress of the Balkan Geophysical Society - Budapest ISBN 978-90-73834-16-3, EAGE 2011. | 5 | **4** |
| 6 | P. Trifonova, **M. Metodiev** (2012) Annual report of the observed geomagnetic activity in Panagyurishte observatory, Bulgarian Geophys. Journal, vol. 38, p. 51-78. | 2 | **10** |
| 7 | **M. Metodiev**, P. Trifonova (2013) Characteristics of the 2012 geomagnetic activity recorded in Panagyurishte observatory, Proceedings of the Second National Congress of Physical Sciences, Sofia, 2013 | 2 | **10** |
| 8 | P. Trifonova, D. Solakov, S. Simeonova, **M. Metodiev**, and P. Stavrev, 2013, Regional pattern of the earth's crust dislocations on the territory of Bulgaria inferred from gravity data and its recognition in the spatial distribution of seismicity, Pattern Recogn. Phys., 1, p. 25-36, doi:10.5194/prp-1-25-2013 | 5 | **4** |
| 9 | **M. Metodiev** (2014) Modelling of declination's secular variation for the purposes of regional topographic mapping, Bulgarian Geophys. Journal, vol.40, p. 76-84 | 1 | **20** |
| 10 | **M. Metodiev**, P. Trifonova (2015) Geomagnetic activity for the last solar cycle recorded in PAG observatory, Proceedings of the 7th National Geophysical Conference, Sofia, 2015 | 2 | **10** |
| 11 | Petya Trifonova, **Metodi Metodiev**, Petar Stavrev, Stela Simeonova, Dimcho Solakov, 2018, Methodology for numerical integration of different data types for the purposes of seismic hazard assessment, Proceedings of the IX National Geophysical Conference, 30th November 2018, Sofia | 5 | **4** |

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| 12 | **Metodiev, M**., & Trifonova, P. (2019). Annual report of the observed geomagnetic activity in Panagjurishte observatory for 2013. Bulgarian Geophysical Journal, Vol. 41, p. 65-82. https://doi.org/10.34975/BGJ-2018.41.7 | 2 | **10** |
| 13 | Trifonova, P., **Metodiev, M**. , Stavrev, P. , Simeonova, S. and Solakov, D. (2019) Integration of Geological, Geophysical and Seismological Data for Seismic Hazard Assessment Using Spatial Matching Index. Journal of Geographic Information System, 11, 185-195. doi: 10.4236/jgis.2019.112013. | 5 | **4** |
| 14 | Trifonova, P., **Metodiev, M**., & Buchvarov, I. (2019). Digital data records in PAG geomagnetic observatory available for a 60 years period. Bulgarian Geophysical Journal, Vol. 42, p. 46-61. https://doi.org/10.34975/BGJ-2019.42.5 | 3 | **6,67** |
| 15 | **Metodiev,** M., & Trifonova, P. (2019). Annual report of the observed geomagnetic activity in Panagyurishte observatory for 2014. Bulgarian Geophysical Journal, Vol. 42, p. 62-76. https://doi.org/10.34975/BGJ-2019.42.6 | 2 | **10** |
| 16 | **Metodiev**, M., & Trifonova, P. (2020). Annual report of the observed geomagnetic activity in Panagjurishte observatory for 2015. Bulgarian Geophysical Journal, Vol. 43, p. 43-58. https://doi.org/10.34975/BGJ-2020.43.4 | 2 | **10** |
| 17 | Petya Trifonova, Dimcho Solakov, Stela Simeonova, **Metodi Metodiev**, Stefan Florin Balan. Parameters of the Seismic Risk for Blagoevgrad Region, Bulgaria. Az-buki National Publishing House, 2020, ISBN:978-619-7065-38-1; e-ISBN 978-619-7065-39-8, DOI:https://doi.org/10.48365/envr-2020.1.32, 353-360 | 5 | **4** |
| 18 | **Metodiev**, M., Trifonova, P.. Annual report of the observed geomagnetic activity in Panagyurishte observatory for 2016. Bulgarian Geophysical Journal, 44, 2021, ISSN:2683-1317 | 2 | **10** |
| 19 | **Metodiev, M**., Trifonova, P.. Annual report of the observed geomagnetic activity in Panagyurishte observatory 2017. Bulgarian Geophysical Journal, 44, 2021, ISSN:2683-1317 | 2 | **10** |
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| **Г** | **9. Публикувана глава от колективна монография** | | **10/n** |
| 1 | Симеонов, С., Солаков, Д., Георгиев, И., Вацева, Р., Димитров, Д., Стефанов, Д., Симеонова, С., Трифонова, П., Васева, Е., Черкезова, Е., Александрова, И., Канева, А., Върбанов, М., **Методиев, М**., Райкова, П., Динков, Д.. Методика за анализ, оценка и картографиране на сеизмичния риск на Република България. МРРБ, Итус'98, 2018, 132 | 2 | **5** |
| 2 | Димчо Солаков, Стела Симеонова, Петя Трифонова, Иван Георгиев, Пламена Райкова, **Методи Методиев**, Ирена Александрова, Димитър Стефанов, Светослав Симеонов, Румяна Вацева, Елена Васева, Дейвис Динков, Георги Георгиев. Управление на сеизмичния риск за сгради. Проф. Марин Дринов - София, 2019, ISBN:978-954-322-988-8, 248 - 4 глави | 7 | **5,71** |
| | | **Общо Показател Г**: | **139.38** |
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| Д | **10. Цитирания или рецензии в научни издания, реферирани и индексирани в световноизвестни бази данни (Scopus, Web of Science, ERIH+ ) с научна информация или в монографии и колективни томове** | | **5т.** |
| 1 | **Trifonova P.,Simeonova S., Solakov D., Metodiev M. 2012 Exploring seismicity in Bulgaria using geomagnetic and gravity data C. R. Acad. Bulg. Sci.,. – Vol. 65, № 5, P. 661-668.** | | |
| | 1. Dimitriu1 R , I. Shtirkov, M.-Bogdan Barbu. UXO search off burgas: a high resolution marine magnetic survey prior to the start of the second phase harbor's expansion. Conf. Procc. 17-th Int. Multidisc. Sci. Geoconf. SGEM2017, Sci. and Techn. In Geology, 17, Section Applied and Environmental Geophysics, 475-482, 2017 | | 5 |
| | 2. Orlyuk, M., Marchenko, A., & Srebrov, B. (2018). Earth's magnetic field components for bulgaria: Results of calculations. Paper presented at the 17th International Conference on Geoinformatics - Theoretical and Applied Aspects, doi:10.3997/2214-4609.201801850 | | 5 |
| | 3. Stanciu, I., & Ioane, D. (2021). The moesian platform: Structural and tectonic features interpreted on regional gravity and magnetic data. Geo-Eco-Marina, 27, 183-195. doi:10.5281/zenodo.5795188 | | 5 |
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| 2 | **P. Trifonova, D. Solakov, S. Simeonova, M. Metodiev, and P. Stavrev, 2013, Regional pattern of the earth's crust dislocations on the territory of Bulgaria inferred from gravity data and its recognition in the spatial distribution of seismicity, Pattern Recogn. Phys., 1, p. 25-36, doi:10.5194/prp-1-25-2013** | | |
| | 1. Groudev P., P.Petrova, 2017.Overview of the available information concerning seismic hazard for the Kozloduy NPP site. Progress in Nuclear Energy, 97, 162-167 | | 5 |
| | 2. Irina-Marilena Stanciu, 2018, Regional active faults as interpreted on crustal seismicity, gravity and magnetic data across the Moesian platform and the north Dobrogean orogen, June 2018, Conference: 18th International Multidisciplinary Scientific GeoConference SGEM2018 DOI: 10.5593/sgem2018/1.1/S05.117 | | 5 |
| | 3. I. Stanciu and I. Dumitru (2021) New Insights on the Moesian Platform Tectonic Features and Geological Structures, Inferred from Regional Gravity Data, Conference Proceedings, 11th Congress of the Balkan Geophysical Society, Oct 2021, Volume 2021, p. 1–5, https://doi.org/10.3997/2214-4609.202149BGS73 | | 5 |
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| 3 | **Dimitrova, L., Georgieva, G., Trifonova, P. Oinakov E., Protopopova V. and Metodiev M. (2020) Seismic sources and Earth structure in the transition zone between Fore-Balkan unit and Moesian platform, NE Bulgaria, Acta Geodaetica et Geophysica, pp. 1-20, DOI: 10.1007/s40328-020-00288-3** | | |
| | 1. Msaddek, M.H., Moumni, Y., Haji, T.A. et al. A fuzzy mathematical model for evaluation of rock-fracture and structural complexity: application for Southern Atlas in Tunisia. Acta Geod Geophys 56, 579–604 (2021). https://doi.org/10.1007/s40328-021-00347-3 | | 5 |

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| | 2. Nikolov, H., & Atanasova, M. (2021). Obtaining ground deformations by multitemporal DInSAR processing in vicinity of archaeological site "solnitsata-provadia". Paper presented at the Proceedings of SPIE - the International Society for Optical Engineering, , 11861 doi:10.1117/12.2599762 | | 5 |
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| | **P. Stavrev, S. Dimovski, A. Kisyov, P. Trifonova and M. Metodiev, Regional mapping of geophysical and geological data in the process of their integrated analysis and interpretation, DOI: 10.3997/2214-4609.201902632, 10th Congress of the Balkan Geophysical Society, Sofia, 2019** | | |
| | 1. Hristova, V., Cherneva, G., & Borisova, D. (2021). Radio communication system with a high degree of protection of information against non-allowed access. Paper presented at the Proceedings of SPIE - the International Society for Optical Engineering, , 11866 doi:10.1117/12.2600499 | | 5 |
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| 5 | **Trifonova, P. , Metodiev, M. , Stavrev, P. , Simeonova, S. and Solakov, D. (2019) Integration of Geological, Geophysical and Seismological Data for Seismic Hazard Assessment Using Spatial Matching Index. Journal of Geographic Information System, 11, 185-195. doi: 10.4236/jgis.2019.112013.** | | |
| | 1. Branzov T., Ivanova K., Milousheva V. (2021) Integration in and Between Earth Observation Research Centers for Achieving Sustainable Development. In: Murayama Y., Velev D., Zlateva P. (eds) Information Technology in Disaster Risk Reduction. ITDRR 2020. IFIP Advances in Information and Communication Technology, vol 622. Springer, Cham. https://doi.org/10.1007/978-3-030-81469-4_17 | | 5 |
| | 2. Sanabria, A.M.F., Castañeda, M.P.B., Ramos, R.R.R. et al. Identification of patterns for space-time event networks. Appl Netw Sci 7, 3 (2022). https://doi.org/10.1007/s41109-021-00442-y | | 5 |
| **Д** | **12. Цитирания или рецензии в нереферирани списания с научно рецензиране** | | **2т** |
| 1 | **P. Trifonova, D. Solakov, S. Simeonova, M. Metodiev, and P. Stavrev, 2013, Regional pattern of the earth's crust dislocations on the territory of Bulgaria inferred from gravity data and its recognition in the spatial distribution of seismicity, Pattern Recogn. Phys., 1, p. 25-36, doi:10.5194/prp-1-25-2013** | | |
| | 1. Stanciu I. and Ioane D., 2016, Active fault systems in the Shabla region (Bulgaria) as interpreted on gravity, magnetometric and seismicity data, Geosciences 2016, Bucarest | | 2 |
| | 2. Khrischev K., S. Shanov, S. Pristavova, Y. Yanev, (2020) Structure of the Earth's crust of the Eastern Rhodopes (Southern Bulgaria) from the regional deep reflection seismic profile Ivaylovgrad-Ardino, Geologica Balc., v.49 (1), p. 3-30 | | 2 |
| | 3. Irina Stanciu, & Dumitru Ioane. (2021). Active fault systems in the Shabla region (Bulgaria) as interpreted on geophysical and seismicity data. Revue Roumaine de geophysique / Romanian geophysical journal, 63 - 64 / 2019 - 2020, 80 pages. http://doi.org/10.5281/zenodo.4543084 | | 2 |

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| | **Trifonova P.,Simeonova S., Solakov D., Metodiev M. 2012 Exploring seismicity in Bulgaria using geomagnetic and gravity data C. R. Acad. Bulg. Sci.,. – Vol. 65, № 5, P. 661-668.** | | |
| | 1. Srebrov B., M. Orlyuk, L. Pashova, I. Makarenko, A. Marchenko, A. Savchenko, 2013 Gravity and magnetic data inventory for investigation of the black sea region. Геодинаміка 2(15),332-334 | | 2 |
| | 2. Rusakov O., I. Pashkevich, 2017. The decisive role of the crystalline crust faults in the Black Sea opening. Geofizicheskiy Zhurnal (Geophysical Journal), 39, 1, 3-16 | | 2 |
| | 3. Dimitriu R., Shtirkov I., Barbu M-B., High resolution marine magnetic survey off Burgas harbor, aiming to identify UXO targets on the seabed, Proceedings, Geosciences, 2016 | | 2 |
| | 4. Ranguelov Boyko, Vasilev Orlin (2021) In Search of Blind and Active Faults to the North Bulgarian Black Sea Coastal Area, in Book: DEVELOPMENTS IN ENGINEERING AND ARCHITECTURE, Chapter: 17, Publisher: ST. KLIMENT OHRIDSKI UNIVERSITY PRESS | | 2 |
| | | **Общо Показател Д**: | **69т.** |
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| **Е** | **17. Ръководство на национален научен или образователен проект** | | **20т.** |
| 1 | Проект „GIS BASED ANALYSIS OF SEISMIC HAZARD SOURCES FOR THE BULGARIAN TERRITORY"", 2018 - 2019 финансиран от World Federation of Scientists, research linked to the global monitoring of the planet (earthquakes) as one of the 15 Planetary Emergencies as set out by the WFS | | 20 |
| 2 | Проект ДФНП-8/ 20.04.2016 „МОДЕЛ НА РАЗПРЕДЕЛЕНИЕТО НА ГЕОМАГНИТНОТО ПОЛЕ НА ТЕРИТОРИЯТА НА БЪЛГАРИЯ ЗА ЕПОХА 2015.0“ финансиран по “Програма за подкрепа на млади учени към БАН” | | 20 |
| | | **Общо Показател Е**: | **40т.** |

Изпълнение на минималните изисквани точки по групи показатели за академична длъжност „доцент“ в Направление 4.4 Науки за Земята според представения списък:

показател А- **50т.**/50т.,
показател В- **156т.**/100т.,
показател Г- **239т**./220т.,
показател Д – **69т**./60т.,
показател Е- **40т**/30т.

23. 05. 2022 г.

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д-р инж. Методи Методиев,
гл. асистент в деп. Геофизика на НИГГГ-БАН