

PERSONAL INFORMATION

Daniela (Neli) Jordanova



PREFERRED JOB

Professor, DSc.

WORK EXPERIENCE

(2015 - present) **Professor (since 15 December 2015)**

National Institute of Geophysics, Geodesy and Geography, Dept. Geophysics, Section “Earth magnetism”

▪ **Expertise in:** environmental magnetism, Rock and soil magnetism, palaeo- and archaeomagnetism, magnetic anisotropy

Business or sector Research Institute, Natural Sciences

(2005 - 2015) **Associate Professor (since 18 October 2005)**

National Institute of Geophysics, Geodesy and Geography, Department of Geophysics, Section Earth magnetism

▪ **Expertise in:** environmental magnetism, Rock and soil magnetism, palaeo- and archaeomagnetism, magnetic anisotropy

Business or sector Research Institute, Natural Sciences

(1997 – 2005) **Researcher**

Geophysical Institute – BAS

▪ **Expertise in:** archaeomagnetism, soil magnetism, mineralogy

Business or sector Research Institute, Earth sciences

EDUCATION AND TRAINING

(1993 - 1996) **PhD student**

Sofia University „St.Kl.Ohridski”, Faculty of Physics

Doctorate, PhD

▪ archaeomagnetism, palaeomagnetism, Earth magnetism

(1989 - 1992) **MSc in Geophysics**

Sofia University „St.Kl.Ohridski”, Faculty of Physics

▪ General geophysics, physics, mathematics

MSc.

(2015) **DSc in Earth Magnetism and Gravimetry**

▪ National Institute of Geophysics, Geodesy and Geography – BAS

▪ Soil magnetism, environmental magnetism, geophysics, archaeomagnetism

DSc.

PERSONAL SKILLS

Mother tongue(s) Bulgarian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C2	C2
Czech	B1	B1	A2	A2	A2
Russian	C2	C2	A2	A1	A2
Replace with name of language certificate. Enter level if known.					

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills Responsibility, correctness,
Good communication with colleagues;

Organisational / managerial skills

- Project leader of national and international scientific research projects
- leadership
- scientific secretary of the Geophysical Institute (BAS) for the period 2006 – 2009
- head of section “Earth magnetism” in National Institute of Geophysics, Geodesy and Geography (NIGGG) (Bulg. Acad. Sci.) since 2010
- head of Palaeomagnetic Laboratory at NIGGG-BAS since 2007
- head of Department “Geophysics” at NIGGG since 2018
- 01/07/2011 – 1/7/2015 Co-chair of IAGA (International Association of Geomagnetism and Aeronomy) WG1.4. „Environmental and Rock magnetism”
- 01/07/2015 – present: Chair of IAGA (International Association of Geomagnetism and Aeronomy) WG1.3. „Environmental and Rock magnetism”
- 18/07/2005 – 29/07/2005 Lead Convener of session GAI09, IAGA meeting, Toulouse/ France
- 23/08/2009 – 30/08/2009 Lead Convener of session I 19, IAGA meeting, Sopron/Hungary
- 02/07/2012 – 06/07/2012 Lead Convener of session S02.05, EuroSoil 2012 meeting, Bari/Italy
- 22/06/2014-02/07/2014 Lead Convener of symposium A09, IUGG 2015 General Assembly, Prague, Czech Republic

Job-related skills

- Management of scientific activities
Use and maintenance of geophysical equipment
- h-index = 23
 - number of citations (in SCOPUS): over 1400
 - reviewer for international peer-reviewed journals (Geophysical Journal International; Science of the Total Environment; Environmental Pollution; Tectonophysics; Applied Geophysics; Environmental Earth Sciences; Geoderma, Catena, etc.)
 - external reviewer for scientific project proposals (ESF, ANR (France), Czech National Science Fund)

Computer skills

- Microsoft Office, Grapher, Surfer, Corel draw

Other skills

- - Award of the Bulg. Acad. Sci. “Marin Drinov” for young scientist in Earth Sciences (competition 2003)

Driving licence

Bulgarian driving licence; category B

ADDITIONAL INFORMATION

Publications	Author/co-author of 67 research papers indexed in SCOPUS
Presentations	More than 50 presentations (poster or oral) at national and international scientific conferences
Projects	Leader/participant in 17 international research projects (including 2 EU-funded projects under FP6 and FP7)

1. Jordanova, D., Petrovsky, E., *Jordanova, N.*, Evlogiev, J., Butchvarova V., 1997. Rock magnetic properties of recent soils from North Eastern Bulgaria. *Geophys.J.Int.*, 128, 477-484
2. *Jordanova,N.*, Petrovsky,E., Kovacheva,M. 1997. Preliminary rock magnetic study of archaeo magnetic samples from Bulgarian sites of BC time. *J.G geomagn.Geolectr.* 49, 543-566.
3. Kapicka, A., Petrovsky, E., *Jordanova, N.* 1997. Comparison of in situ field measurements of soil magnetic susceptibility with laboratory data. *Studia Geoph. Geod.*, 41,391-395.
4. Kovacheva, M., *Jordanova,N.*, Karloukovski, V. 1998. Geomagnetic field variations as determined from Bulgarian archaeomagnetic data. *Surveys in Geophysics*,19, 431-460.
5. Jordanova, D. and *Jordanova, N.* 1999. Magnetic characteristics of different soil types from Bulgaria. *Studia Geoph. et geod.*, 43, 303-318.
6. Kapicka, A., *Jordanova, N.*, Petrovsky, E., Ustjak, S., 2000. Magnetic stability of power-plant fly ashes in different soil solutions. *Phys. Chem. Earth (A)*, 25, 431-436.
7. Petrovsky, E., Kapicka, A., *Jordanova, N.*, Knab, M., Hoffmann, V., 2000. Low-field magnetic susceptibility: a proxy method of estimating increased pollution of different environmental systems. *Environmental Geology*, 39 (3-4), 312-318.
8. Zhu, R..., Kazansky, A., Matasova, G, Guo, B., Zykina, V., Petrovsky, E., *Jordanova, N.*, 2000. Rock-magnetic investigation of Siberia loess and its implication. *Chinese Science Bull.*, 45, No 23, 2192-2197.
9. *Jordanova N*, Petrovsky E, Kovacheva M., *Jordanova, D.*, 2001. Factors determining magnetic enhancement of burnt clay from archaeological sites. *J.Archaeol.Sci.*, 28 (11), 1137-1148.
10. Kovacheva, M. and *Jordanova, N.*, 2001. Bulgarian archaeomagnetic studies: a review of methodological progress and applications in archaeology. *Proceed. of Workshop "Archaeometry in archaeology: new trends"*, Rhodes, 3-6.11.1999. In: *J. of Radioanal.Nuclear Chem.*, (guest ed. I. Liritzis), Vol. 247, No 3, 685-696.
11. Matasova, G, Petrovsky E., *Jordanova, N.*, Zykina V., Kapicka A., 2001. Magnetic study of Late Pleistocene loess/palaeosol sections from Siberia: palaeoenvironmental implications. *Geophys. J. Int.* 147, 367-380.
12. *Jordanova, N.*, *Jordanova, D.*, Petrovsky, E., Kovacheva, M. , 2001. Changes in magnetic properties of archaeological samples of burnt clay. Implications for palaeointensity determination. *Studia Geophys. Geodaet.*, 45, 297-318
13. Kapicka A., *Jordanova, N.*, Petrovsky, E., Ustjak, S., 2001. Effect of different soil conditions on magnetic parameters of power-plant fly ashes. *Journal of Applied Geophysics*, 48, 93-102.
14. Petrovsky, E., Kapicka A., *Jordanova N.*, Boruvka, L., 2001. Magnetic properties of alluvial soils contaminated with lead, zinc and cadmium. *J. Appl. Geophys.* 48, 127-136.
15. Kapicka, A., Petrovsky, E., *Jordanova, N.*, Podrazsky, V., 2001. Magnetic parameters of forest top soils in Krkonose Mountains, Czech Republic. *Phys. Chem. Earth (A)*, 26, 917-922.
16. Grygar, T., Bezdzicka P., Vorm, P., *Jordanova, N.*, Krtil, P. 2001. Spinel Solid Solutions in Li-Fe-Mn-O System, *J. Solid State Chem.* 161, 152-160.
17. *Jordanova, N.*, Henry, B., *Jordanova, D.*, Ivanov, Z., Dimov, D., Bergerat, F., 2001. Paleo magnetism in Northwestern Bulgaria: geological implications of widespread remagnetization. *Tectonophysics*, 343, 1-2, 79-92.
18. Wehland, F., Panaiotu, C., Appel, E., Hoffmann, V., *Jordanova, N.*, Denut, I. , 2002. The dam breakage of Baia Mare – a pilot study of magnetic screening. *Phys. Chem. Earth.*, 27, 1371-1376.
19. Schibler, L., Boyko, T., Ferdyn, M., Gajda, B., Holl, S., *Jordanova, N.*, Roesler, W. and MAGPROX team, 2001. Topsoil magnetic susceptibility mapping: data reproducibility and compatibility, measurement strategy. *Stud. Geophys. Geod.*, 46, 43-57.
20. *Jordanova, N.*, Kovacheva, M., Hedley, I., Kostadinova, M., 2003. On the suitability of baked clay for archaeomagnetic studies as deduced from detailed rock-magnetic studies. *Geophysical Journal International*, 153, 146-158.
21. *Jordanova, N.*, *Jordanova, D.*, Veneva, L., Yorova, K., Petrovsky, E., 2003. Magnetic response of soils and vegetation to heavy metal pollution – a case study. *Environmental Science and Technology*, 37, 4417-4424.
22. Henry, B., *Jordanova, D.*, *Jordanova, N.*, Souque, Ch., Robion, P., 2003. Anisotropy of magnetic susceptibility of heated rocks. *Tectonophysics*, 366, 241-258.
23. Kapicka, A., *Jordanova, N.*, Petrovsky, E., Podrazsky, V., 2003. Magnetic study of weakly contaminated forest soils. *Water, Air and Soil Pollution*, 148, 31-44.
24. Veneva, L., Hoffmann, V., *Jordanova, D.*, *Jordanova, N.*, Fehr, Th., 2004. Rockmagnetic, mineralogical and microstructural characterization of fly ashes from Bulgarian power plants and the nearby anthropogenic soils. *Phys. Chem. Earth*, 29, 1011-1023.
25. *Jordanova, N.*, Kovacheva, M., Kostadinova, M., 2004. Archaeomagnetic investigation and dating of Neolithic archaeological site (Kovachevo) from Bulgaria. *Phys. Earth Planet. Inter.*, 147, 2-3, 89 – 102.
26. Kovacheva,M., Hedley I., *Jordanova N.*, Kostadinova M., Gigov V., 2004. Archaeomagnetic dating of archaeological sites from Switzerland and Bulgaria. *J. Archaeol. Science*, 31, 1463-1479.
27. Henry, B., *Jordanova, D.*, *Jordanova, N.*, Le Goff, M., 2005. Thermal transformations of magnetic mineralogy of rocks revealed by difference of the hysteresis loops measured after stepwise heating. *Geophys. J. Int.*, 162, 64-78.
28. *Jordanova, D.*, *Jordanova, N.*, Hoffmann, V., 2006. Magnetic mineralogy and grain-size dependence of hysteresis parameters of single spherules from industrial waste products. *Phys. Earth Planet. Inter.* , 154, 255-265.
29. *Jordanova, N.*, *Jordanova, D.*, Henry, B., LeGoff, M., Dimov, D., Tsacheva, Ts., 2006. Magnetism of cigarette ashes. *J. Magn. Magn. Mater.*, 301, 50-66.
30. *Jordanova, D.*, *Jordanova, N.* Henry, B., Hus, J., Bascou, J., Funaki, M., Dimov, D., 2007. Changes in mean magnetic susceptibility and its anisotropy of rock samples as a result of alternating field demagnetization. *Earth and Planetary Science Letters*, 255, 390-401.
31. Henry, B., *Jordanova, D.*, *Jordanova, N.*, Hus, J., Bacou, J., Funaki, M., Dimov, D., 2007. Alternating field-impressed AMS in rocks. *Geophys. J. Int.*, 168, 533-540.
32. Henry, B., *Jordanova, D.*, *Jordanova, N.* Derder, M., Bayou, B., Amenna, M., Dimov, D., 2007. Composite magnetic fabric deciphered using heating treatment. *Stud.Geophys.Geod.* 51, 293-314.
33. *Jordanova, N.*, *Jordanova D.*, Tsacheva Ts., 2008. Application of magnetometry for delineation of an thropogenic pollution in areas covered by various soil types. *Geoderma*, 144(3-4),557-571.

Publications

34. Kovacheva, M., Boyadzhiev, Y., Kostadinova-Avramova, M., *Jordanova, N.* and Donadini, F. Updated archaeomagnetic data set of the past 8 millennia from the Sofia laboratory, Bulgaria, *Geochem. Geophys. Geosyst.*, 2009, 10, Q05002, doi:10.1029/2008GC002347.
35. Kovacheva, M., Chauvin, A., *Jordanova, N.*, Lanos, P., Karloukovski, V., 2009. Remanence anisotropy effect on the palaeointensity results obtained from various archaeological materials, excluding pottery. *Earth, Planets & Space*, 61 711-732
36. Georgiev, N., Henry, B., *Jordanova, N.*, Froitzheim, N., Jordanova, D., Ivanov, Z., Dimov, D. 2009. The emplacement mode of upper Cretaceous plutons from the southwestern part of the Sredna Gora Zone (Bulgaria): Structural and AMS study. *Geol. Carpathica*, 60,1, 15-33.
37. Jordanova D., *Jordanova N.*, Petrov P., Tsacheva, T., 2010. Soil development of three Chernozem-like profiles from North Bulgaria revealed by magnetic studies. *Catena*, 83, 158-169.
38. Jordanova, D., Petrov, P., Hoffmann, V., Gocht, T., Panaiotu, C., Tsacheva, T., *Jordanova, N.*, 2010. Magnetic Signature of Different Vegetation Species in Polluted Environment. *Studia Geophysicae et Geodaetica*, 54, 3, 417-442.
39. Henry, B., Naydenov, K., Dimov, D. , *Jordanova, D.* , *Jordanova, N.* , 2012 Relations between the emplacement and fabric-forming conditions of the Kapitan-Dimitriev pluton and the Maritsa shear zone (Central Bulgaria): magnetic and visible fabrics analysis. *Int. J. Earth Sci.* 101 (3), 747-759
40. *Jordanova N.*, *Jordanova D.*, Petrov P., 2011. Magnetic imprints of pedogenesis in Planosols and Stagnic Alisol from Bulgaria. *Geoderma* 160, 477-489
41. *Jordanova D.*, Grigorov, V., *Jordanova, N.*, Petrov P., 2011. Palaeoclimatic significance of hematite/goethite ratio in Bulgarian loess-palaeosol sediments deduced by DRS and rock magnetic measurements. In: "The Earth's Magnetic Interior" Volume 1, in the IAGA Special Sopron Book Series, Springer (IAGA special volume publication from 11th Scientific Assembly, August 23 – 30 2009, Sopron, Hungary), pp. 399-412.
42. *Jordanova D.*, *Jordanova, N.*, Atanasova, A., Tsacheva, T., Petrov, P. 2011. LiDAR-Daten zur Unterstützung der montanarchäologischen Untersuchungen am spätbronzezeitlichen Goldbergwerk Ada Tepe (Stadt Krinovo grad, Rhodopen, Südostbulgarien). *Journal of Cultural Heritage*, 12, 3, 275-283
43. *Jordanova, D.*, *Jordanova, N.*, Popov, H., Jochenhövel, P. A., 2014. LiDAR-Daten zur Unterstützung der montanarchäologischen Untersuchungen am spätbronzezeitlichen Goldbergwerk Ada Tepe (Stadt Krinovo grad, Rhodopen, Südostbulgarien). *Journal of Cultural Heritage*, 12, 3, 275-283
44. Grison, H. , Petrovský, E., *Jordanova, N.*, Kapicka, A., 2011. A structural origin of the soil development in Zlatouza (Central Rhodope, Bulgaria): A case study from NW Bulgaria. *Studia Geophysica et Geodaetica*, 54, 3, 397-413
45. Henry B. , Naydenov K., Dimov D., *Jordanova, D.*, *Jordanova, N.*, 2012. Relations between the emplacement and fabric-forming conditions of the Kapitan-Dimitriev pluton and the Maritsa shear zone (Central Bulgaria): Magnetic and visible fabrics analysis. *Int. J. Earth Sci.* 101 (3), 747-759.
46. *Jordanova D.*, Goddu S.R., Kotsev T., *Jordanova N.*, 2013. Industrial contamination of alluvial soils near Fe-Pb mining site revealed by magnetic and geochemical studies. *Geoderma* 192, 237-248.
47. *Jordanova, D.* , *Jordanova, N.*, Werban, U., 2013. Environmental significance of magnetic properties of Gley soils near Rosslau (Germany). *Env. Earth Sci.*, 69 (5), 1719-1732.
48. *Jordanova, N.* , *Jordanova, D.*, Liu, Q., Hu, P., Petrov, P., Petrovský, E., 2013. Soil formation and mineralogy of a Rhodic Luvisol - insights from magnetic and geochemical studies. *Global and Planetary Change*, 110, 397-413.
49. *Jordanova, D.* , *Jordanova, N.*, Petrov, P., 2014. Magnetic susceptibility of road deposited sediments at a national scale - Relation to population size and urban pollution. *Environmental Pollution* 189, 239-251.
50. *Jordanova D.*, *Jordanova N.*, Petrov P., 2014. Pattern of cumulative soil erosion and redistribution pinpointed through magnetic signature of Chernozem soils. *Catena*, 120, 46-56.
51. Georgiev N., Henry B., *Jordanova N.*, Jordanova D., Naydenov K., 2014. Emplacement and fabric-forming conditions of plutons from structural and magnetic fabric analysis: A case study of the Plana pluton (Central Bulgaria). *Tectonophysics*, 629, 138-154.
52. Kovacheva M., Kostadinova-Avramova M., *Jordanova N.* , Lanos Ph., Boyadzhiev Y., 2014. Extended and revised archaeomagnetic database and secular variation curves from Bulgaria for the last eight millennia. *Physics of the Earth and Planetary Interiors*, 236, 79-94.
53. *Jordanova D.* and *Jordanova N.*, 2016. Thermomagnetic behavior of magnetic susceptibility – heating rate and sample size effects. *Front. Earth Sci.* 3, 90; doi:10.3389/feart.2015.00090.
54. *Jordanova, N.*, *Jordanova D.*, Petrov, P., 2016. Soil magnetic properties in Bulgaria at a national scale—Challenges and benefits. *Global and Planetary Change*, 137, 107-122.
55. *Jordanova, N.*, *Jordanova, D.* 2016. Rock magnetic and geochemical characteristics of alluvial Vertisols – signs of past climate and recent pedogenic development. *Geophysical Journal International*, 205, Oxford University Press, ISSN:0950-540X, DOI:10.1093/gjw/gfw067.1437-1454.
56. *Jordanova, N.* “Soil Magnetism Applications in Pedology, Environmental Science and Agriculture”. 1st Edition, Academic Press (Elsevier) 2016. ISBN: 9780128002392, 466
57. *Jordanova, N.*, Petrovský, E., Kapicka, A., *Jordanova, D.*, Petrov, P., 2017. Application of magnetic methods for assessment of soil restoration in the vicinity of metallurgical copper-processing plant in Bulgaria. *Environmental Monitoring and Assessment*, 189, Article number 158
58. Attoucheik, L., *Jordanova, N.*, Bayou, B., Lagroix, F., *Jordanova, D.*, Maoche, S. Henry, B. , Boutaleb, A., 2017. Soil metal pollution from former Zn-Pb mining assessed by geochemical and magnetic investigations: case study of the Bou Cair area (Tissemsilt, Algeria). *ENVIRONMENTAL EARTH SCIENCES*, 76 (7), Article Number: 298, DOI: 10.1007/s12665-017-6622-
59. Kostadinova-Avramova, M., *Jordanova, N.*, *Jordanova, D.*, Grigorov, V., Lesigjarski, D., Dimitrov, P., Bozhinova, E., 2018. Firing temperatures of ceramics from Bulgaria determined by rock-magnetic studies. *Journal of Archaeological Science: Reports*, 17, 617-633.

60. *Jordanova, N., Jordanova, D., Kostadinova-Avramova, M., Lesigyarski, D., Nikolov, V., Katsarov, G., & Bacvarov, K. , 2018. A mineral magnetic approach to determine paleo-firing temperatures in the Neolithic settlement site of Mursalevo-Deveboaz (SW Bulgaria). Journal of Geophysical Research: Solid Earth, 123. <https://doi.org/10.1002/2017JB01519>.*
61. *Jordanova, D., Jordanova, N., Barrón, V., Petrov, P., 2018. The signs of past wildfires encoded in the magnetic properties of forest soils. CATENA, 171, 265-279. IF=3.256*

Projects (Selected)

1. “Fire in the past recorded in archaeological remains and soils – implications for archaeology and soil science from a rock-magnetic perspective” – Bulgarian National Science Fund; contract No ДФНИ К02/13, 2015-2016.
2. “Geophysical investigations of the environmental pollution level and its effect on human health in urban areas.” Project DO 02-193/2008r., National Science Fund, 2008 – 2011.
3. “Soils and palaeosols as an archive of (palaeo)climates”. Bilateral cooperation project BAS - Chinese Academy of Sciences, 2012 – 2014
4. “Interactions between soil related sciences – Linking geophysics, soil science and digital soil mapping”- iSOIL. “ 7th FP, Collaborative project No 211386; 2008 – 2011
5. SCOPES Project IB7320-110723 “Environmental Applications of Soil Magnetism for Sustainable Land Use”; 2005 – 2008. Partners: Institute of Geophysics, ETH-Hönggerberg, Dr. Ann Hirt; Institute for Terrestrial Ecology, Soil Chemistry, ETH-Schlieren, Prof. Dr. Ruben Kretzschmar; Geophysical Institute, BAS, Dr. Diana Jordanova; Faculty of Geology and Geography, Sofia Univ. "St. Kl. Ohridski", Assoc. Prof. Dr. Dimo Dimov