

University	<i>National University of Science and Technology «MISIS»</i>
Level of English proficiency	<i>fluent</i>
Educational program and field of the educational program for which the applicant will be accepted	<i>1.3.8 Condensed matter physics. (Solid state physics)</i>
List of research projects of the potential supervisor (participation/leadership)	(2025-2026) RSF Grant 22-12-00259-II , leadership (2022-2024) RSF Grant 22-12-00259-II , leadership (2017-2021) RSF Grant 17-12-01505, participation
List of the topics offered for the prospective scientific research	Experimental research (low-temperature electron spin resonance) of spin systems with strong spin fluctuations
	<i>01.03.UK Physics, Condensed Matter,</i>
	Scientific interests:
	<u>Keywords:</u> <i>Low temperature physics, magnetism, electron spin resonance.</i> Experimental research on spin systems with exotic ordered or disordered states. E.g., low-dimensional magnets and frustrated spin systems, which due to a particular geometry of the exchange bonds and/or fine balance of different interactions can demonstrate correlated spin-liquid-like states at low temperatures.
	Electron spin resonance spectroscopy facilities are provided by P.Kapitza Institute for Physical Problems RAS
	Research highlights:
Prof. V. N. Glazkov <i>Dr. Sci, P.Kapitza Institute for Physical Problems RAS</i> SCOPUS ID: 7006676720 web: www.kapitza.ras.ru/people/glazkov/	<i>Electron spin resonance experiments down to 100 mK, in the fields up to 14 T and at microwave frequencies 1-300 GHz</i>
	Supervisor's specific requirements: • <i>Master degree in physics. Key topics: quantum mechanics, solid state physics, statistical physics</i> • <i>Experience of work in the experimental laboratory, skills in the experimental data processing (graphs plotting, fitting)</i> • <i>Sufficient level of spoken Russian and/or English;</i> • <i>Basic academic writing skills (the ability to express cause-and-effect relationships in the text),</i>
	Selected publications list: 1. <u>V.N. Glazkov</u>, "Magnetic resonance in low-temperature paramagnets", <i>Physics - Uspekhi</i> 67, 1248 (2024) 2. S. S. Sosin, A. F. Iafarova, I. V. Romanova, O. A. Morozov, S.L.Korableva, R. G. Batulin, M. Zhitomirsky, and <u>V. N. Glazkov</u>, "Microscopic Spin Hamiltonian for a Dipolar Heisenberg Magnet LiGdF₄ from EPR Measurements", <i>JETP Letters</i> 116, 771 (2022) (arXiv:2210.09725) 3. Yu.V. Krasnikova, S.C. Furuya, <u>V.N. Glazkov</u>, K.Yu. Povarov, D. Blosser, and A. Zheludev, "Anisotropy-induced soliton excitation

	in magnetized strong-rung spin ladders", <i>Physical Review Letters</i> 125, 027204 (2020) (arXiv:2006.14899) 4. <u>V. N. Glazkov</u>, Yu. V. Krasnikova, I. K. Rodygina, J. Chovan, R.Tarasenko, A. Orendacova, "Splitting of antiferromagnetic resonance modes in the quasi-two-dimensional colinear antiferromagnet $\text{Cu(en)(H}_2\text{O)}_2\text{SO}_4$", <i>Physical Review B</i> 101, 014414 (2020) (arXiv:1907.11140) 5. <u>V.N. Glazkov</u>, M. Fayzullin, Yu. Krasnikova, G. Skoblin, D. Schmidiger, A. Zheludev, "ESR study of the spin ladder with uniform Dzyaloshinskii-Moriya interaction", <i>Physical Review B</i> 92, 184403 (2015) (arXiv:1507.02503) 6. <u>V.N. Glazkov</u>, G. Skoblin, D. Huvonen, T.S. Yankova, A.Zheludev, "Formation of gapless triplets in the bond-doped spin-gap antiferromagnet $(\text{C}_4\text{H}_{12}\text{N}_2)(\text{Cu}_2\text{Cl}_6)$", <i>Journ. Phys.: Cond. Matter</i> 26, 486002 (2014) (arXiv:1401.4665) 7. O. A. Petrenko, M. R. Lees, G. Balakrishnan, <u>V. N. Glazkov</u>, S. S. Sosin, "Novel magnetic phases in a $\text{Gd}_2\text{Ti}_2\text{O}_7$ pyrochlore for a field applied along the [100] axis", <i>Physical Review B</i> 85, 180412(R) (2012) (arXiv:1203.6326) 8. <u>V.N.Glazkov</u>, A.I.Smirnov, A.Zheludev, B.C.Sales, "Modes of magnetic resonance of the $S=1$ dimer chain compound NTENP.", <i>Physical Review B</i> 82, 184406 (2010) (arXiv:1011.5742) 9. A.I.Smirnov and <u>V.N.Glazkov</u>, "Mesoscopic Spin Clusters, Phase Separation, and Induced Order in Spin-Gap Magnets: A Review", <i>JETP</i> 105, 861 (2007) 10. <u>V.N.Glazkov</u>, C.Marin, J.-P.Sanchez, "Observation of a transverse magnetization in the ordered phases of the pyrochlore magnet $\text{Gd}_2\text{Ti}_2\text{O}_7$", <i>Journ.Phys.:Cond.Matter</i> 18, L429 (2006) (cond-mat/0604544) 11. <u>V.N.Glazkov</u>, A.I.Smirnov, A.Revcolevschi, and G.Dhalenne, "Magnetic resonance study of the spin-reorientation transitions in the quasi-one-dimensional antiferromagnet $\text{BaCu}_2\text{Si}_2\text{O}_7$", <i>Physical Review B</i> 72, 104401 (2005) (cond-mat/0509015) 12. <u>V.N.Glazkov</u>, A.I.Smirnov, H.-A.Krug von Nidda, A.Loidl, K.Uchinokura, T.Masuda, "Field-controlled phase separation at the impurity-induced magnetic ordering in the spin-Peierls magnet CuGeO_3", <i>Physical Review Letters</i> 94, 057205 (2005) (cond-mat/0404715) 13. <u>V.N.Glazkov</u>, A.I.Smirnov, H.Tanaka, A.Oosawa, "Spin-resonance modes of the spin-gap magnet TlCuCl_3", <i>Physical Review B</i> 69, 184410 (2004) (cond-mat/0311243)
	Results of intellectual activity (при наличии)