	RYBIN, Mikhail V. Doctor of Science
Research interests	Bound states in the continuum, phase change materials, quasicrystals, resonant interaction of light with photonic structures, Fano resonances, all dielectric metamaterials, photonic crystals, and nanoantennas
List of the supervisor's research projects (participation/supervision)	✓ Resonant dielectric photonics ✓ Quasicrystalline photonics ✓ Phase change materials
List of potential thesis topics	✓ Bound states in the continuum ✓ Optical mode coupling ✓ Photonics in the time domain
Publications in the last five years	96 (Scopus / Web of Science / RSCI)
Key publications	1. S. Li, B. Ma, Q. Li, M.V. Rybin, "Antenna-based approach to fine control of supercavity mode quality factor in metasurfaces", Nano Lett. 23, 6399-6405 (2023) 2. M.V. Rybin, A.D. Sinelnik, M. Tajik, V.A. Milichko, E.V. Ubyivovk, S.A. Yakovlev, A.B. Pevtsov, D.A. Yavsin, D.A. Zuev, S.V. Makarov, "Optically Reconfigurable Spherical Ge-Sb-Te Nanoparticles with Reversible Switching" Laser Photon. Rev. 16, 2100253 (2022) 3. P. Tonkaev, I.S. Sinev, M.V. Rybin, S.V. Makarov, Y. Kivshar "Multifunctional and Transformative Metaphotonics with Emerging Materials", Chem. Rev. 122, 19, 15414-15449 (2022) 4. A.D. Sinelnik, I.I. Shishkin, X. Yu, K.B. Samusev, P.A. Belov, M.F. Limonov, P. Ginzburg and M.V. Rybin "Experimental Observation of Intrinsic Light Localization in Photonic Icosahedral Quasicrystals" Adv. Opt. Mater., 8, 202001170 (2020) 5. S. Han, L. Cong, Y. K. Srivastava, B. Qiang, M. V. Rybin, A. Kumar, R. Jain, W. X. Lim, A. V. Gopal, S. S. Prabhu, Q. Wang, Y. S. Kivshar, and R. Singh. "All-Dielectric Active Terahertz Photonics Driven by Bound States in the Continuum", Adv. Mater., 31, 1901921 (2019)
Code of the subject area of the PhD program	1.3.2 Devices and Methods of Experimental Physics 1.3.4 Radio Physics 1.3.6 Optics 1.3.8 Condensed State Physics