

Georgii D. Kurganov

1st Year PhD Student

Personal Data

Date of Birth: May 31, 2001

Mobile: +7 911 028 6995

Email: georgiy.kurganov@metalab.ifmo.ru

Education

- 2024 – present* Joint PhD in Physics
School of Physics and Engineering, ITMO University
College of Physics and Optoelectronic Engineering, Harbin Engineering University
- 2022 – 2024* MSc in Physics and Technology of Wireless Systems, School of Physics and Engineering, ITMO University (*with honours*)
Thesis title: Investigation of Surface Waves in Three-dimensional Dielectric Photonic Topological Insulator
Supervisor: Dmitry Zhirihin, PhD, Assistant Professor, School of Physics and Engineering, ITMO University
- 2018 – 2022* BSc in Technical Physics, School of Physics and Engineering, ITMO University (*with honors*)
Thesis title: Investigation of Zero-dimensional Topological States in One-dimensional Periodic Structures
Supervisor: Dmitry Zhirihin, PhD, Assistant Professor, School of Physics and Engineering, ITMO University

Work Experience

- July 2022 – present* Engineer, ITMO University
- September 2023 – present* Assistant Lecturer, School of Physics and Engineering, ITMO University
- June 2023* Project Supervisor, Summer Internship for School Students at the School of Physics and Engineering, ITMO University
- September 2021 – June 2022* Lab Assistant, ITMO University
- June 2021* Project Supervisor, Summer Internship for School Students at the School of Physics and Engineering, ITMO University

Grants and Scholarships

- September 2023 – August 2024* Russian Federation President Stipend for Students of the Priority Majors
- June 2023* Saint Petersburg Government Award for Students
- September 2022 – January 2023* Enhanced State Academic Stipend for Achievements in Research
- September 2022 – August 2024* Russian Federation President Grant
- September 2021* Grant for Master's and PhD Students' Research, ITMO University

Publications

Kurganov G., Dobrykh D., Puhtina E., Yusupov I., Slobozhanyuk A., Kivshar Y., Zhirihin D. Temperature-Controlled Topological Zigzag Arrays of Resonators // 2023 Seventeenth International Congress on Artificial Materials for Novel Wave Phenomena (Metamaterials) - 2023, pp. X-177 - X-179

Zhirihin D., **Kurganov G.**, Dobrykh D., He Z., Bobylev D., Smirnova D., Puhtina E., Yusupov I., Gorlach M., Kivshar Y.S., Slobozhanyuk A. Reconfigurable electromagnetic topological states in arrays of coupled dielectric resonators // 2023 International Conference on Microwave and Millimeter Wave Technology (ICMMT) - 2023, pp. 1-3

Kurganov, G., Dobrykh, D., Puhtina, E., Yusupov, I., Slobozhanyuk, A., Kivshar, Y. S., & Zhirihin, D. (2022). Temperature control of electromagnetic topological edge states. Applied Physics Letters, 120(23), 233105.

Conferences

September 11 – 16, 2023 17th International Congress on Artificial Materials for Novel Wave Phenomena (Metamaterials)

April 3 – 6, 2023 XII Young Scientists' Congress, ITMO University
Diploma for the best paper by a young scientist

April 4 – 6, 2022 XI Young Scientists' Congress, ITMO University
Diploma for the best undergraduate paper

Scientific Interests

Topological Photonics, Wireless Power Transfer, RF Experiments

Skills

Languages: Russian (native), English (Advanced)

Software: CST Microwave Studio, COMSOL Multiphysics, MATLAB, Wolfram Mathematica, LaTeX

Practical: RF Experiments, Near-Field Scanning