CV, updated March 2024

Dr. DMITRY PONOMAREV
Head of Photonics Group
Born 20 July 1986
Google Scholar, H-index – 26

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EDUCATION

- **Ph.D. is Electrical Engineering, Moscow Engineering Physics Institute (MEPhI)** — **2012**
- **B.S., M.D. in Condensed Matter Physics and Solid State Electronics, MEPhI** — **2006, 2009**

PROFESSIONAL APPOINTMENTS

- **Institute of Ultra-High Frequency Semiconductor Electronics of the Russian Academy of Sciences, Moscow, Russia**

Head of Photonics Group / Professor (Associate) — **2014–p.t.**
Key Duties: managing my cross-labs group of 20 people; operating, general administrative and maintenance activities of the group; proposing, leading and supervising projects in cutting-edge terahertz and microwave photonics and optoelectronics; establishing KPIs for differentiated group of people; writing proposals for domestic and international research foundations; mentoring Ph.D. students; teaching activities for M.S. and postgraduate students in the Institute and in Moscow Institute of Physics and Technology, Dolgoprudny Russia

- **Tohoku University, Research Institute of Electrical Communication, Sendai, Japan**

Principal Investigator — **2018–p.t.**
Key Duties: remote and onsite managing an international group of 7 people of Japanese and Russian researchers; leading international projects since 2018; works on ultrafast quantum devices

- **Moscow Engineering Physics Institute, Moscow, Russia**

Group Lead of Microelectronics NanoCenter — **2006–2012**
Key Duties: hands-on experience in microelectronics processing and engineering technology, namely in MBE, EBL, UV/deep-UP lithography; direct works on GaAs and GaN-based MMICs manufacturing lines; direct participation in the establishment of the NanoCenter

RESEARCH INTEREST

Integrated Semiconductor THz Optoelectronics and Photonics
Wireless Communications, 5G/6G Networks, Quantum Devices

HONORS/AWARDS/PARTICIPATION

- Laureate of the Annual Prize for the physicists of the Government of Moscow for his contribution to the development of optoelectronic quantum devices
- Invited Conference Chair of Conference of SPIE Photonics West 2022, 22-27 January 2022, San Francisco, California, USA
- Member of a Program Committee, International conference on biophotonics and THz optics, Saratov Fall Meeting
- Member of scientific council, Center for Photonics and 2D materials, Moscow Institute of Physics and Technology
- Member of scientific council, Institute of Ultra-High Frequency Semiconductor Electronics of the Russian Academy of Sciences
- Winner of the President's scholarship for young researchers
- Scholarship Diploma of the Mokerov's foundation for the support of science and education
- Certificated expert of the Russian Academy of Sciences
- Certificated expert of the Russian Science Foundation
- Member of the Russian Science Foundation grant winners consortium
- Diploma for "100 best Russian inventions in 2018"

LANGUAGE SKILLS

Russian: native
English: fluent
Italian: basic

SOFT SKILLS

- Leadership and communication skills
- Hobby: skiing, hockey, tracking

HEAD OF PROJECTS (selected)

1. Ministry of Science and Higher Education of the Russian Federation, project FNSR-2021-0002 "*Development and fabrication of semiconductor sources based on effective band heterostructrures for spectroscopic and imaging applications in THz frequency range*", duration 2022-2024, **domestic project**

2. Russian Science Foundation, grant 19-79-10240 "Fiber-coupled optical-to-THz switches for spectroscopic and imaging applications", duration 2021-2023, **domestic project**

3. Russian Science Foundation, grant 18-79-10195 "*Photoconductive antennas based on novel physical principles for the development of instruments for medical diagnosis of malignancies: manufacturing technology, theoretical and experimental studies*", duration 2018-2023, **domestic project**

4. Ministry of Science and Higher Education of the Russian Federation, project AAAA-A19-119071890026-2 "*InGaAs/InAlAs strain-induced superlattices for THz photomixers*", duration 2019-2021, **domestic project**

5. Federal Agency for Scientific Organizations, project AAAA-A18-118030590049-2 "*Exploratory research aimed at the development of THz emitters and detectors (high-electron mobility transistor and a photoconductive antenna on a chip)*", duration 2018 year, **domestic project**

6. Federal Agency for Scientific Organizations, project AAAA-A17-117070550013-2 "*Development of the physical principles of manufacturing technology of low-temperature grown GaAs and/or InGaAs photoconductive substrates for THz emitters (frequency range 0.5–5.0 THz)*", duration 2017 year, **domestic project**

7. Research Institute of Electrical Communication (RIEC), Tohoku University, RIEC Nation-wide Cooperative Research Project H30/A04 "*Japan-Russia International collaborative research on gated GaAs structures with an array of self-assembled Sn-nanothreads and their terahertz applications*", duration 2018-2019. The host team PI is Prof. Taiichi Otsuji, http://www.otsuji.riec.tohoku.ac.jp/english/index_en.php, **international project**

8. RIEC Nation-wide Cooperative Research Project H31/A31 "*Japan-Russia International collaborative research on high sensitive and tunable room-temperature plasmonic photoconductive antenna-detector*", duration 2019-2020, **international project**

9. RIEC Nation-wide Cooperative Research Project R02/A12 "*Japan-Russia International collaborative research on a large-area photoconductive terahertz detector for high-speed imaging*", duration 2020-2022, **international project**

10. RIEC Nation-wide Cooperative Research Project R04/A03 "*Japan-Russia International collaborative research on boosting a performance of a large-area THz photoconductive emitter*", duration 2022-2023, **international project**