

Photonics and Quantum Materials



Full Name	Advisor / Co-adviser	Thesis Title	
Kseniia Kiseleva	Vladimir Antonov / Konstantin Zvezdin	Neuromorphic Computing with STT-MRAM	
Anastasiya Knyazeva	Vladimir Antonov	Development of Optical Fibers for Surface Enhanced Raman Spectroscopy	
Andrey Tselin	Vladimir Drachev	Permittivity and Plasma Frequency of Platinum for Integrated Photonics	
Andrei Aleksandrov	Nikolay Gippius / Dmitrii Chermoshentsev	Dynamics of Squeezed State of Light in χ^3 Nonlinear Medium	
Anastasia Netrusova	Yuriy Gladush / Aram Mkrtchyan	Self-emerging Laser-cavity Soliton Generation Using Integrated Microresonator Embedded Into Fiber Cavity with Multiple Active Media	
Grigory Vyaznikov	Yuriy Gladush / Albert Nasibulin	Machine Learning Assisted Laser Regimes Classification	
Egor Zhermolenko	Yuriy Gladush / Aram Mkrtchyan	Adsorption-driven Optical Gas Sensing with Nanomaterials	

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Altynai Sydygalieva	Dmitry Gorin	Non-invasive Optical Monitoring of Skin Water Content	
Aleksandra Vergules	Sergey Kosolobov / Vladimir Drachev	Narrowing the Laser Linewidth Using Silicon-based Integrated Microresonators	
Mohammad Monowar	Sakellaris Mailis	UV Laser-assisted Synthesis of 2D Transition Metal Dichalcogenides (2D-TMD) Nanolayers	
Mariia Shevchenko	Sakellaris Mailis	Pyroelectric Gating of Laser Synthesized 2D-TMDCs	
Kirill Malgin	Albert Nasibulin / Dmitry Krasnikov	Engineering Holey Monolayer Graphene Using the Boudouard Reaction	
Iurii Rogov	Albert Nasibulin	Fine-tuning Properties of CNT Films Produced with CVD Technology	
Maksim Kolker	Denis Sannikov / Pavlos Lagoudakis	Tunable Broadband Polariton Lasing from Perovskite Nano Crystals CsPbBr3 at Room Temperature	