



## Koromyslov Sergei

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Date of birth: 18 July 1998

### Work experience

September 2020 – present time

#### Research fellow

Department of Physics, ITMO University

- Research area includes: resonant metal-dielectric nanostructures, femtosecond laser action, broadband photoluminescence, dewetting of thin films.
- Duties: fabrication of metal-dielectric structures, measurement of linear and nonlinear optical effects, results processing, writing articles.

October 2018 – June 2020

#### Laboratory assistant

Ferroic Physics Laboratory (FerroLab) Ioffe Institute

- Research area includes: magneto-optical polarimetry methods, ultrafast optomagnetism, femtosecond laser action, spin valve, Curie switch, indirect-exchange coupling of the Ruderman-Kittel-Kasuya-Yosida (RKKY).
- Duties: optical setup building, results processing.

### Education background

2020 – 2022

#### Master of Science in Technical Physics

ITMO University

Major in Physics of semiconductors

Focus on semiconductor technologies, photonics and spintronics

2016 – 2020

#### Bachelor of Science in Physics

Peter the Great St. Petersburg Polytechnic University (SPbPU)

Major in Physics and technology of nanostructures

Focus on solid state physics, crystallography, nanoplasmonics

### Publications

Ponkratova, E., Ageev, E., Komissarenko, F., Koromyslov, S., Kudryashov, D., Mukhin, I., Veiko, V., Kuchmizhak, A., Zuev, D. (2021, April). Femtosecond Laser Fabrication of Hybrid Metal-Dielectric Structures with Nonlinear Photoluminescence. Photonics 8(4), 121. MDPI AG. Retrieved from <https://doi.org/10.3390/photonics8040121>

Koromyslov, S., Ageev, E., Ponkratova, E., Zuev, D. (2021, November). Fabrication of metal-dielectric nanoparticles from a bi-layer gold-silicon film by femtosecond laser-induced dewetting. Journal of Physics: Conference Series 2015(1), 012071. IOP Publishing. Retrieved from <https://doi.org/10.1088/1742-6596/2015/1/012071>

Koromyslov, S., Ageev, E., Ponkratova, E., Larin, A., Shishkin, I., Danilov, D., Mukhin, I., Makarov, S., Zuev, D. (2022, May). Femtosecond Laser-Assisted Formation of Hybrid Nanoparticles from Bi-Layer Gold-Silicon Films for Microscale White-Light Source. Nanomaterials, 12(10), 1756. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/nano12101756>

### Oral presentations

«Determination of the value of the indirect-exchange coupling RKKY interaction by the method of magneto-optical polarimetry in the Curie switch structure Fe/(FeCr)/Fe.»

S. V. Koromyslov, L. A. Shelukhin, A. M. Kalashnikova and A. F. Kravets

XLII «Week of Science SPbPU» (2019)

«Fabrication of metal-dielectric nanoparticles from a bi-layer gold-silicon film by femtosecond laser-induced dewetting»  
S. V. Koromyslov, E. I. Ageev, E. Yu. Ponkratova and D. A. Zuev  
VI International Conference on Metamaterials and Nanophotonics «METANANO 2021»

**Skills**

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**Languages** Russian: native speaker, English: B1

**Computer skills** Python, CST, LaTeX, MATLAB

**Awards**

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Increased State Academic Scholarship 2021, 2022

Vladimir Potanin Foundation scholarship for master students – 2021-2022