

д.ф.-м.н. **Чернов Александр Игоревич** вns, зав. лаб. Физики магнитных гетероструктур и спинtronики для энергосберегающих информационных технологий МФТИ, Научный руководитель группы Квантовая спинtronика и низкоразмерные материалы Российский квантовый центр.

Список работ по теме диссертации:

1. Shnan, N.S., Sadeghi, S., Farzaneh, M. S. M. Hamidi, V. I. Belotelov & **A. I. Chernov**. Longitudinal Magneto-optical Kerr Effect in Insulator/Metal/Insulator Grating Structure. *J Supercond Nov Magn* 35, 3397–3401 (2022). doi:10.1007/s10948-022-06369-4
2. A.A. Kolosvetov, M.A. Kozhaev, I.V. Savochkin, V.I. Belotelov, and **A.I. Chernov**. Concept of the Optomagnonic Logic Operation. *Phys. Rev. Applied* 18, 054038 (2022) doi:10.1103/PhysRevApplied.18.054038
3. Polulyakh, S.N., Berzhanskii, V.N., Semuk, E.Y., V. I. Belotelov, P. M. Vetoshko, V. V. Popov, A. N. Shaposhnikov, **A. I. Chernov**. Magnetoelastic Coupling Modulation at Ferromagnetic Resonance in Garnet Ferrite Films. *Tech. Phys.* 66, 1011–1017 (2021). doi:10.1134/S1063784221070112
4. Kozhaev, M.A., **Chernov, A.I.**, Sylgacheva, D.A. et al. Giant peak of the Inverse Faraday effect in the band gap of magnetophotonic microcavity. *Sci Rep* 8, 11435 (2018). doi:10.1038/s41598-018-29294-w
5. **Chernov, Alexander I.**, Mikhail A. Kozhaev, Anastasiia Khramova, et al. Control of the phase of the magnetization precession excited by circularly polarized femtosecond-laser pulses. *Photonics Research* 6, 11 1079 (2018). DOI: [10.1364/PRJ.6.001079](https://doi.org/10.1364/PRJ.6.001079)
6. Kuzmichev, A.N., Sylgacheva, D.A., Kozhaev, M.A., Denis M. Krichevsky, Alexander N. Shaposhnikov, Vladimir N. Berzhansky, Francisco Freire-Fernández, Huajun J. Qin, Olena E. Popova, Niels Keller, Sebastiaan van Dijken, **Alexander I. Chernov**, Vladimir I. Belotelov. Influence of the Plasmonic Nanodisk Positions Inside a Magnetic Medium on the Faraday Effect Enhancement. *Phys. Status Solidi RRL*, 14: 1900682 (2020). [doi:10.1002/pssr.201900682](https://doi.org/10.1002/pssr.201900682)
7. **Chernov, Alexander I.**, Mikhail A. Kozhaev, Daria O. Ignatyeva et al. All-dielectric nanophotonics enables tunable excitation of the exchange spin waves. *Nano letters* 20, 7 5259 (2020):. [doi:10.1021/acs.nanolett.0c01528](https://doi.org/10.1021/acs.nanolett.0c01528)
8. Ignatyeva, D.O., Karki, D., Voronov, A.A., **Alexander I. Chernov**, Miguel Levy & Vladimir I. Belotelov. All-dielectric magnetic metasurface for advanced light control in dual polarizations combined with high-Q resonances. *Nat Commun* 11, 5487 (2020). doi:10.1038/s41467-020-19310-x
9. **Chernov, A. I.**, M. A. Kozhaev, and V. I. Belotelov. Tunable Generation of Spin Waves by Ultrashort Optical Pulses in Magnetic Dielectric Thin Films. *Optomagnonic Structures: Novel Architectures For Simultaneous Control Of Light And Spin Waves*, pp. 135-174. (2021). [doi:10.1142/9789811220050_0003](https://doi.org/10.1142/9789811220050_0003)
10. Ignatyeva, Daria O., Grigory A. Knyazev, Andrey N. Kalish, **Alexander I. Chernov**, and Vladimir I. Belotelov. Vector magneto-optical magnetometer based on resonant all-dielectric gratings with highly anisotropic iron garnet films. *Journal of Physics D: Applied Physics* 54, 29 295001 (2021). doi:10.1088/1361-6463/abfb1c