



# Georgii Sizykh

*In Strings we trust*

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Date of birth 17.04.1996

## EDUCATION

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**Postgraduate study** 2020-now  
*Peter the Great St. Petersburg Polytechnic University (SPbSTU),  
Saint Petersburg, Russia  
Department of Theoretical Physics*

**Master's degree** 2018-2020  
*Saint Petersburg Academic University of the Russian Academy of Sciences (SPbAU RAS),  
Saint Petersburg, Russia  
Department of Theoretical Physics  
Diploma with honors  
GPA 5/5*

**Bachelor degree** 2014-2018  
*Peter the Great St. Petersburg Polytechnic University (SPbSTU),  
Saint Petersburg, Russia  
Department of Physical Electronics  
Diploma with honors  
GPA 5/5*

## SCIENTIFIC ACTIVITY

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**Magnetic Research Laboratory** 2016-2019  
*Peter the Great St. Petersburg Polytechnic University (SPbSTU)  
Study of magnetic properties of 2D nanostructures, de Haas - van Alphen oscillations in 2D electron gas at finite temperatures*

**Fundamental Problems of Superstrong Fields Laboratory** 2019-now  
*Peter the Great St. Petersburg Polytechnic University (SPbSTU)  
Study of resonant external field QED processes, resonant nonlinear trident pair production*

## SKILLS

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- Latex, Mathematica, Origin, MatLab
- English (Advanced)

## **PUBLICATIONS (INDEXED IN SCOPUS AND WOS)**

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- V.V. Romanov, N.T. Bagraev, V.A. Kozhevnikov, G.K. Sizykh and C.T. Tracey. De Haas - van Alphen effect in a silicon nanosandwich: determination of the effective carrier mass, *Journal of Physics: Conference Series*, 2019, 1236, 012013, doi:10.1088/1742-6596/1236/1/012013
- V.V. Romanov, N.T. Bagraev, V.A. Kozhevnikov, G.K. Sizykh. 2D electron gas density of states at the Fermi level in silicon nanosandwich, *Journal of Physics: Conference Series*, 2019, 1236, 012014, doi:10.1088/1742-6596/1236/1/012014
- Georgii K. Sizykh, Sergei P. Roshchupkin and Victor V. Dubov. Resonant Ultrarelativistic Electron–Positron Pair Production by High - Energy Electrons in the Field of an X - ray Pulsar, *Universe*, 2020, 6, 132, doi:10.3390/universe6090132
- [Under review] Georgii K. Sizykh, Sergei P. Roshchupkin and Victor V. Dubov. Resonant Effect of High-Energy Electron–Positron Pairs Production in Collision of Ultrarelativistic Electrons with an X-ray Electromagnetic Wave, *Universe*, 2021