Ekaterina Shchetka

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Education

2017-current	**PhD student**, *St. Petersburg State University*, Department of Mathematics and Mathematical Physics.
2015-2017	**M.Sc. in Physics**, *St. Petersburg State University*, Department of Mathematics and Mathematical Physics, diploma with honours, GPA 4.94.
2011-2015	**B.Sc. in Physics**, *St. Petersburg State University*, Department of Mathematics and Mathematical Physics, diploma with honours, GPA 4.97.

Master thesis

2017	**Quasiclassical limit and analysis of difference equations**, *advisor: Prof. Dr. A. Fedotov.*

Grants, Scholarships

2017	1st place at olympiad «Petropolitan Science (Re)Search»;
	Bocconi Institute of Data Science Award;
	Deich scholarship for the best master thesis.
2016	Rokhlin Grant for young mathematicians of St. Petersburg;
	Government Scholarship for high academic achievements;
	St. Petersburg State University Alumni Association Scholarship.
2015	2nd place in August Möbius Contest (Moscow).
2013	Government Special Scholarship in the field of mathematics and physics;
	Zarubina Scholarship for excellent study and active participation in the life of the faculty.

Publications

2017	• A. Fedotov, E. Shchetka. Berry phase for difference equations. Proceedings of the International Conference Days on Diffraction 2017, pp. 113-116, St.Petersburg: IEEE.
	• A.A. Fedotov, E.V. Shchetka. The complex WKB method for difference equations in bounded domains. J. Math. Sci. (2017) 224: 157.
	• A. Fedotov, E. Shchetka. Complex WKB method for the difference Schrödinger equation with the potential being a trigonometric polynomial. Algebra and analysis. Vol. 29, 2, pp. 188-214, 2017.
2016	A. Fedotov, E. Shchetka. Complex WKB method for difference equations in unbounded domains. Proceedings of the International Conference Days on Diffraction 2016, pp. 4, St.Petersburg: IEEE.
2015	A.A. Fedotov, E.V. Shchetka. Complex WKB method for difference equations in bounded domains. Zapiski Nauchn. Sem. POMI, Vol. 438, pp. 236-254, 2015.

Conferences

2017	• **International Student Conference "Science and Progress"**, *St. Petersburg State University*.
	• **Seminar "Theory of random processes"**, *The Chebyshev Laboratory*, St. Petersburg.
	• **Annual International Conference "Days on Diffraction 2017"**, *St. Petersburg Department of Steklov Institute of Mathematics of the Russian Academy of Sciences*.
2016	• **A trilateral German-Russian-Ukrainian summer school "Spectral Theory, Differential Equations and Probability"**, *Johannes Gutenberg Universität*, Mainz, Germany.

- **8th St.Petersburg Conference in Spectral Theory**, *Euler International Mathematical Institute*.
- **Annual International Conference "Days on Diffraction 2016"**, *St. Petersburg Department of Steklov Institute of Mathematics of the Russian Academy of Sciences*.

2015
- **International Student Conference "Science and Progress - 2015"**, *St. Petersburg State University*.
- **August Möbius Contest**, *Independent University of Moscow*.

Schools

2017
- **Summer school: Discrete Models in Geometry and Mathematical Physics**, *Berlin Mathematical school: Technische Universität Berlin*, Berlin, Germany.
- **Bocconi Summer School in Advanced Statistics and Probability: Statistical Causal Learning**, *Bocconi University*, Milan, Italy.

2016
- **A trilateral German-Russian-Ukrainian summer school "Spectral Theory, Differential Equations and Probability"**, *Johannes Gutenberg Universität*, Mainz, Germany.
- **Summer School: Various aspects of mathematical physics**, *Euler International Mathematical Institute*, St. Petersburg, Russia.

Languages

Russian (native), English (B2 certificate), French (basic), Chinese (basic).

Computer skills

Python, Matlab, Maple, Origin, Paskal, Delphi, Windows, Mac OS.

Scientific interests

Spectral theory of ergodic Schrodinger operators, asymptotic analysis, theory of difference equations on the complex plane, theory of random processes.

Work experience

2017-current Researcher, The Chebyshev Laboratory.

Technical secretary, Department of Mathematics and Mathematical Physics, St. Petersburg State University.

References

Prof. Dr. A. Fedotov, advisor, St. Petersburg State University, s.fedotov@mail.ru.

Prof. Dr. T. Suslina, the head of the department of Mathematics and Mathematical Physics, St. Petersburg State University, suslina@list.ru.

Prof. Dr. N. Smorodina, St. Petersburg Department of Steklov Institute of Mathematics of the Russian Academy of Sciences, smorodina@pdmi.ras.ru.