

Yulia PETROVA

PERSONAL DATA

PLACE AND DATE OF BIRTH: Ukhta, Republic of Komi, Russia | 29 June 1991
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RESEARCH INTERESTS

- Gaussian processes
- Partial differential equations
- Spectral theory
- Displacement of viscous fluids in porous media

EDUCATION

2013–2018 | PhD student in Mathematical Physics, St. Petersburg State University, Russia. Supervisor: [Prof. Nazarov A. I.](#) Date of defence: November 2018. PhD thesis: «Exact L_2 -small ball asymptotics for finite-dimensional perturbations of Gaussian processes» (in Russian)

2008–2013 | Specialist in Mathematics, chair of Mathematical Physics, St. Petersburg State University, Russia

PROFESSIONAL EXPERIENCE

2018–PRESENT | Teaching at «[Modern programming](#)», Saint Petersburg State University, Russia.

2017–PRESENT | Researcher at [Chebyshev laboratory](#), Saint Petersburg State University, Russia. Participant of industrial projects with PJSC «Gazprom Neft».

2014–2018 | Assistant at [Department of Mathematics and Information Technology](#), Saint Petersburg Academic University, Russia.

2012–15 | Assistant at [Institute of Physics, Nanotechnology and Telecommunications](#), Saint Petersburg Polytechnic University, Russia.

RESEARCH GRANTS AND AWARDS

2018–19 | «[Gazprom Neft](#)» stipendiat

2018 | [Winner of 22nd Möbius Contest](#) in nomination «Undergraduates and graduates»

2017–18 | RNF Grant 17-11-01003: Asymptotic spectral analysis: gaps, near-threshold anomalies, “invisibility” and eigenvalues

2016–18 | RFBR Grant 16-01-00258a: Approximation of stochastic processes and functionals of them

2013–16 | St Petersburg State University Grant 6.38.670.2013: Partial Differential Equations and applications

2009 | Euler Fellowship for undergraduate students

RESEARCH PAPERS

- 2019 | Yu. Petrova, *[L₂-small ball asymptotics for a family of finite-dimensional perturbations of Gaussian functions.](#)* arXiv:1905.07804.
- 2018 | Yu. Petrova, *[On spectral asymptotics for a family of finite-dimensional perturbations of operators of trace class.](#)* Doklady Math., 2018, Volume 98, №1, Pages 367–369.
- 2017 | Yu. Petrova, *[Exact L₂-small ball asymptotics for some Durbin processes.](#)* Zap. nauchn. sem. POMI, 2017, Volume 466, Pages 211–233. In Russian.
- 2016 | Yu. Petrova, *[Spectral asymptotics for problems with integral constraints.](#)* Mat. Zametki, 2017, Volume 102, Issue 3, Pages 405–414.
- 2015 | A. I. Nazarov, Yu. P. Petrova *[The small ball asymptotics in Hilbertian norm for the Kac–Kiefer–Wolfowitz processes.](#)* Teor. Veroyatnost. i Primenen., 2015, Volume 60, Issue 3, Pages 482–505 (Translated)

PRESENTATIONS AT CONFERENCES

- JAN 2018 | [The third Indo-Russian meeting in probability and statistics.](#) Talk: Exact small ball asymptotics in L_2 -norm for finite-dimensional perturbations of Gaussian processes: spectral method
- DEC 2017 | [Saint-Petersburg winter conference on Probability Theory and Mathematical physics. PDMI-MIAN.](#) Talk: On exact spectral asymptotics of finite-dimensional perturbations of integral operators of trace class
- JUNE 2017 | [Symposium on Probability Theory and Random Processes.](#) Talk: Exact small ball asymptotics in L_2 -norm for some perturbations of the Brownian bridge
- APRIL 2017 | [International conference on partial differential equations — Silkroad Mathematics Center series international conferences \(Beijing, China, 10–21 April 2017\).](#) Poster: Spectral asymptotics in some problems with integral constraints.
- JUNE 2016 | [Days of Diffraction-2016.](#) Talk: Spectral asymptotics in some problems with integral constraints.
- MAY 2016 | [The 2nd Russian-Indian Joint Conference in Statistics and Probability.](#) Talk: Small ball asymptotics for detrended Green Gaussian processes of arbitrary order.
- SEPT 2015 | [Yu.V.Linnik Centennial Conference.](#) Talk: The small ball asymptotics in L_2 -norm for the Kac-Kiefer-Wolfowitz processes
- JULY 2015 | [7th St.Petersburg Conference in Spectral Theory.](#) Talk: Asymptotics of eigenvalues for some integro-differential operators

LANGUAGES

- RUSSIAN: | Native speaker
- ENGLISH: | Fluent
- SPANISH: | Fluent
- PORTUGUESE: | Reading and writing

ADDITIONAL EXPERIENCE

- 2012–2017 | Teaching in [Formulo de Integreco](#) — Educational Center for gifted high-school Students