

# Pavel Ievlev

Département de sciences actuarielles  
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Born: May 3, 1997  
Saint Petersburg, Russia

## Current position

*Assistant diplômé*, DSA, HEC UNIL

## Areas of specialisation

Probability theory; Stochastic processes; Gaussian random fields

## Academic positions

2017-2019	Research assistant at Laboratory of Statistical Methods, St. Petersburg Department of V.A. Steklov Mathematical Institute of the Russian Academy of Sciences, Saint Petersburg, Russia
2020-2022	Researcher, Leonard Euler Mathematical Institute, Saint Petersburg, Russia
2021-present	Assistant diplômé at Département de sciences actuarielles, HEC UNIL, Lausanne, Switzerland
2024	Assistant diplômé at Département des opérations HEC UNIL, Lausanne, Switzerland

## Education

2014-2018	B.Sc. in Physics, with honors, St. Petersburg State University, Department of Mathematics and Mathematical Physics; GPA: 4.89/5.0. <ul style="list-style-type: none"><li>• Bachelor thesis "Limit theorems on the convergence of functionals of a random walk to the Cauchy problem solution for the non-stationary Schrödinger equation". Advisor Prof. N. Smorodina.</li></ul>
2018-2020	M.Sc. in Physics, with honors, St. Petersburg State University, Department of Mathematics and Mathematical Physics; GPA: 5.0/5.0. <ul style="list-style-type: none"><li>• Master thesis "Probabilistic representations of initial-boundary value problem solutions for the Schrödinger equation in a bounded domain". Advisor Prof. N. Smorodina.</li></ul>
2020-2021	Ph.D. in Probability Theory and Mathematical Statistics, PDMI RAS. <ul style="list-style-type: none"><li>• PhD thesis "An operator approach to constructing complex and reflecting stochastic processes". Advisor Prof. N. Smorodina.</li></ul>
2021-2024	Ph.D. in Actuarial Sciences, UNIL. <ul style="list-style-type: none"><li>• PhD thesis "Towards a theory of multivariate Gaussian extremes". Advisor Prof. E. Hashorva.</li></ul>

## Grants

- 2017-2019 Probabilistic approaches to constructing solutions for linear and non-linear partial differential equations, RNF 17-11-01136.
- 2021-2023 Asymptotic Constants in Stochastic Models, SNSF grant 200021-196888.

## Publications & talks

### JOURNAL ARTICLES

- Pavel Ievlev, Timofei Shashkov, Upper and lower bounds on TVD and KLD between centered elliptical distributions in high-dimensional setting, *submitted to Statistics and Probability Letters*.
- 2025 Artur Bille, Victor Buchstaber, Pavel Ievlev, Svyatoslav Novikov, Evgeny Spodarev, Random eigenvalues of nanotubes, *Journal of Physics A: Mathematical and Theoretical*.
- 2025 Pavel Ievlev, Nikolai Kriukov, Extremes of vector-valued locally additive Gaussian fields with application to double crossing probabilities, *Electronic Journal of Probability*.
- Krzysztof Dębicki, Pavel Ievlev, Nikolai Kriukov, Extremes of Brownian decision trees, *submitted to Annals of Applied Probability*.
- 2024 Pavel Ievlev, Extremes of locally-homogenous vector-valued Gaussian processes, *Extremes*, 27, no. 2, pp. 219-245.
- 2023 Pavel Ievlev, Parisian ruin with power-asymmetric variance near the optimal point with application to many-inputs proportional reinsurance, *Stochastic Models*, 40, no. 3, pp. 518-535.
- 2023 Pavel Ievlev, Svyatoslav Novikov, A matrix-valued Schoenberg's problem and its applications, *Elect. Comm. Probab.*, 28, paper no. 48.
- 2021 Pavel Ievlev, Symmetric Levy processes with reflection, *Glob. Stoch. Anal.*
- 2019 Pavel Ievlev, Reflecting Brownian motion in  $d$ -ball, *Zap. Nauchn. Sem. POMI*, 486, pp. 158-177.
- 2018 Pavel Ievlev, "Probabilistic representations of the initial-boundary value problem solutions for the Schrödinger equation", *Zap. Nauchn. Sem. POMI*, 474, pp. 149-170.
- 2017 Pavel Ievlev, "Probabilistic representation of the Cauchy problem solution for the multidimensional Schrödinger equation", *Zap. Nauchn. Sem. POMI* 466, pp. 145-158.

## Teaching

- 2025 Lectures "Mathématiques II" at DSA HEC UNIL
- 2021-2024 Teaching Assistant for "Actuarial Modelling", "Time Series" and "Loss Models" at DSA HEC UNIL
- 2024 Teaching Assistant for "Optimization Methods in Management Science" at DO HEC UNIL