

# Sergei Iakovenko

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## Contact information

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## Research interests

Algebraic number theory, arithmetic geometry.

## Education

- 2017–present**   Mathematical Institute of the University of Bonn, PhD studies  
                  Advisor Peter Scholze.
- 2011–2017**     Saint Petersburg State University, Saint Petersburg.  
                  MS in mathematics under the supervision of Alexander Smirnov (2017).  
                  Thesis: Vector bundles on some arithmetic schemes.

## Publications

1. *S. Iakovenko*. Representations of the Kottwitz gerbes (2020), Preprint.
2. *S.S. Iakovenko*. Vector  $\mathbb{P}_{\mathbb{Z}}^1$ -bundles with generic fiber  $\mathcal{O} \oplus \mathcal{O}(1)$  and simple jumps (2018), *Journal Math Sciences* 232, pp. 732-745.
3. *A. L. Smirnov, S. S. Yakovenko*. A construction of linear filtrations for bundles on  $\mathbb{P}_{\mathbb{Z}}^1$  (2017), *Mat. Sbornik*, 208:4, pp. 111-128.

## Unpublished notes

1. *S. Iakovenko*. A survey on vector bundles over  $\mathbb{P}_{\mathbb{Z}}^1$  (2017).

## Employment

- 2015–2017**   Student researcher, Chebyshev Laboratory, St. Petersburg State University.

## Academic Honours

- 2015**   Rokhlin Grant.  
**2013**   Gazprom Neft Stipend.  
**2011**   Euler Foundation Stipend.

## Teaching experience

*As an organizer*

- 2017**         “Modular forms and Hecke operators”, seminar.  
**2016–2017**   “The arithmetic of modular curves”, seminar.

*As a teaching assistant*

- 2014**   “Algebra and number theory”, Department of Mathematics and Mechanincs, SPbU.

### Invited lectures

- 2016 “Vector bundles on the Arakelov compactification of  $\mathbb{P}_{\mathbb{Z}}^1$ ”, Arithmetic geometry seminar, IUM, Moscow.
- 2016 “Determinant bundles and the Quillen metric”, Chebyshev Lab Colloquium, St. Petersburg.

### Selected seminar talks

- 2019 “Special cases of the AFL”, ARGOS, University of Bonn.
- 2018 “ $\delta$ -rings”, ARGOS, University of Bonn.
- 2017 “Segal spaces and  $(\infty, 1)$ -categories”, Higher K-theory seminar, POMI, St. Petersburg.
- 2016 “Automorphic forms for  $\mathbf{O}_n$ , neighbours, and Siegel theta series”, seminar on modular forms, Chebyshev Lab, St. Petersburg.
- 2015 “The Picard scheme of an abelian variety”, seminar on abelian varieties, Chebyshev Lab, St. Petersburg.

### Attended conferences and summer schools

- 2019 “ $\mathbb{F}_1$ -Geometry and Motives”, Augsburg, November 8-9.
- 2019 “Geometry and arithmetic of algebraic varieties”, Bonn, June 11-14.
- 2018 “Conference on Arithmetic Algebraic Geometry”, Bonn, October 1 - 5.
- 2018 “Arithmetic and Algebraic Geometry”, a conference in honor of Ofer Gabber, IHES, Bures-sur-Yvette, France, June 11-15.
- 2018 “Conference on Arithmetic and Automorphic Forms”, on the occasion of Günter Harder’s 80th birthday, MPIM, Bonn, March 12 - 14.
- 2016 The 6th summer school “Algebra and geometry”, Yaroslavl, YSPU.
- 2015 “Algebraic Geometry and Applications to Physics and Dynamics” conference, May 25 - 29, 2015, The Euler International Mathematical Institute, St. Petersburg.
- 2014 Traditional winter session MIAN-POMI “Algebraic geometry,  $K$ -theory, and motives”, POMI, St. Petersburg.

### Languages

Russian, English, Portuguese – fluent, Spanish – intermediate.