ALEXEY BESHENOV

☎ (+7) 968 460 4811   ◉ cadadr.org   ✉ cadadr@gmail.com

Birth date: February 24 1989, USSR
Citizenship: Russian

ACADEMIC INTERESTS

- algebraic geometry

- number theory

- special values of zeta functions

- Weil-étale cohomology

- motivic cohomology

EDUCATION

- **2014–2018**: **University of Bordeaux** (France), **Leiden University** (Netherlands).

  ALGANT DOC Program, European Union scholarship.

  PhD in mathematics.

  Thesis "Zeta-values of arithmetic schemes at negative integers and Weil-étale cohomology", supervised by Baptiste Morin (Bordeaux) and Bas Edixhoven (Leiden).

  Defense: Leiden, December 10, 2018.

  Referees: S. Lichtenbaum (Brown University), N. Ramachandran (University of Maryland).

- **2012–2014**: **University of Milan** (Italy), **University of Bordeaux** (France).

  ALGANT Master Program, European Union scholarship.

  MSc in Mathematics.

  MSc thesis on algebraic K theory, supervised by Boas Erez (Bordeaux).

- **2010–2012**: University of the Russian Academy of Sciences, Saint Petersburg, Department of Mathematics and Computer Science.

  MSc in theoretical computer science, diploma cum laude.

  Thesis advisor: Dmitrii Pasechnik.

WORK EXPERIENCE

- **October 2019 – November 2020**: **Center for Research in Mathematics (CIMAT)**, Guanajuato, Mexico, **visiting researcher**.

  Hosts: Xavier Gómez Mont, Pedro Luis del Ángel.

- **February 2018 – August 2019**: University of El Salvador, Natural Sciences Faculty, School of Mathematics, **visiting professor**.

  Colaboration with the Ministry of Education of El Salvador, to support the master program in pure mathematics. Lectures for master and bachelor students, editing of teaching materials, etc.

TALKS

- **October 2021**: 54 Congreso Nacional de la Sociedad Matemática Mexicana (online)

- **June 2021**: V Encuentro Conjunto de la Real Sociedad Matemática Española y la Sociedad Matemática Mexicana, Guanajuato (online)

- **May 2021**: Seminar on $\mathbb{A}^1$-topology, motives and K-theory, Saint Petersburg (online)

- **March 2021**: Number theory seminar UAM-ICMAT, Madrid (online)

- **February 2020**: Coloquio Oaxaqueño de Matemáticas, IMUNAM, Oaxaca

- **December 2019**: First IMSA Conference, IMUNAM/CINVESTAV, Mexico City

- **November 2019**: Universidad Autónoma de Zacatecas (three talks)

- **October 2019**: XIII Algebra and Topology Workshop, IMUNAM, Cuernavaca

- **October 2019**: Algebraic geometry seminar, CIMAT, Guanajuato

- **May 2019**: Samuel Gitler Conference, CINVESTAV, Mexico City

- **December 2017**: Algebra, geometry and number theory seminar, Ldeiden

MATHEMATICAL WRITING

- Alexey Beshenov, Margaret Bilu, Yuri Bilu, Purusottam Rath, *Rational points on analytic varieties*, EMS Surv. Math. Sci. 2 (2015), no. 1, 109–130.
  https://doi.org/10.4171/EMSS/10

- Alexey Beshenov, *Zeta-values of arithmetic schemes at negative integers and Weil-étale cohomology*, PhD thesis, Leiden, December 2018.
  https://openaccess.leidenuniv.nl/handle/1887/68224

- Alexey Beshenov, *Weil-étale cohomology and duality for arithmetic schemes in negative weights*, 2020, preprint arXiv 2012.11034, submitted for publication.
  https://arxiv.org/abs/2012.11034

- Alexey Beshenov, *Weil-étale cohomology and zeta-values of arithmetic schemes at negative integers*, 2021, preprint arXiv 2102.12114, submitted for publication.
  https://arxiv.org/abs/2102.12114

- Alexey Beshenov, *Zeta-values of one-dimensional arithmetic schemes at strictly negative integers*, 2021, preprint arXiv 2111.13398, submitted for publication.
  https://arxiv.org/abs/2111.13398

TEACHING EXPERIENCE

One-semester courses

- **Fall 2020**: **Algebraic number theory**, Master program in pure mathematics, CIMAT, Guanajuato.

- **Spring 2019**: **Computational commutative algebra (Gröbner bases)** for master students, University of El Salvador.

- **Spring 2019**: **Algebra I (rings and groups)** for undergraduate students, University of El Salvador.

- **Spring 2018**: **Commutative algebra** for master students, University of El Salvador.

- **Fall 2018**: **Algebra II (rings and fields)** for undergraduate students, University of El Salvador.

- **Spring 2018**: **Algebra I (groups)** for undergraduate students, University of El Salvador.

Minicourses

- **Fall 2019**: **Around arithmetic zeta functions**, CIMAT, Guanajuato.

- **August 2019**: **Scheme theory** for master students, University of El Salvador.

- **November 2018**: **Quadratic reciprocity law** for undergraduate students, University of El Salvador.

- **July 2018**: **Reciprocity laws from Gauss to Artin**, University of El Salvador.

- **June 2018**: **Category theory** for master students, University of El Salvador.

- **April 2018**: **p-adic numbers** for master students, University of El Salvador.

- **February 2018**: **Bernoulli numbers**, University of El Salvador.

- **August–september 2016**: **Homological algebra**, University of El Salvador.

LANGUAGES

Russian (native); Spanish, English (fluent); French, Italian (intermediate).

COMPUTER SKILLS

GNU/Linux, LaTeX, programming, computer algebra systems: PARI/GP, Sage, Macaulay2, GAP4.

REFERENCES

- Baptiste Morin (University of Bordeaux)
- Matthias Flach (Caltech)
- Niranjan Ramachandran (University of Maryland)
- Bas Edixhoven (Leiden University)
- Pedro Luis del Ángel (CIMAT)
- Xavier Gómez Mont (CIMAT)