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ALEXEY BESHENOV

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Presa del Falcón # 129, Celaya, 38010, Guanajuato, Gto., Mexico

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

- **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 for arbitrary arithmetic schemes and $n < 0$. Part I: Construction of Weil-étale complexes*, 2020, preprint (arXiv:2012.11034), submitted for publication.
<https://arxiv.org/abs/2012.11034>
- Alexey Beshenov, *Weil-étale cohomology for arbitrary arithmetic schemes and $n < 0$. Part II: The special value conjecture*, 2021, preprint (arXiv:2102.12114).
<https://arxiv.org/abs/2102.12114>
- Alexey Beshenov, *Zeta-values of one-dimensional arithmetic schemes at $n < 0$* , 2021, in preparation.
<https://cadadr.org/papers/1-dim-schemes.pdf>

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

- [Bas Edixhoven](#) (Leiden University)
- [Matthias Flach](#) (Caltech)
- [Baptiste Morin](#) (University of Bordeaux)
- [Niranjan Ramachandran](#) (University of Maryland)