KALOYAN SLAVOV

Department of Mathematics
ETH Zürich
Rämistrasse 101
8092 Zürich, Switzerland
kaloyan.slavov@math.ethz.ch

EDUCATION

Massachusetts Institute of Technology, Ph.D. Mathematics, February 2011.
Advisor: Bjorn Poonen. Thesis: *The moduli space of hypersurfaces whose singular locus has high dimension.*

University of Cambridge, Certificate of Advanced Study in Mathematics, July 2008.

Harvard University, A.B. Mathematics, *summa cum laude*, June 2007.
Advisor: Samit Dasgupta. Thesis: *Gross-Stark units for totally real number fields.*

EMPLOYMENT

ETH Zürich, Fall 2015 – present. Postdoc in the Department of Mathematics and Director of the ETH outreach Math Youth Academy program.

American University in Bulgaria. Assistant Professor in the Department of Mathematics (Fall 2014); Adjunct Assistant Professor (Fall 2011 – Fall 2013).

PUBLICATIONS AND PREPRINTS

- The exceptional locus in the Bertini irreducibility theorem for a morphism (with B. Poonen), *International Mathematics Research Notices*, rnaa182, https://doi.org/10.1093/imrn/rnaa182, arXiv:2001.08672v3
- Factorization type probabilities of polynomials with prescribed coefficients over a finite field, *Acta Arithmetica*, **194** (2020), 315–318, https://doi.org/10.4064/aa190420-31-10, arXiv:1903.09050v2
- An application of random plane slicing to counting $\mathbb{F}_q$-points on hypersurfaces, *Finite Fields and Their Applications*, **48** (2017), 60–68, https://doi.org/10.1016/j.ffa.2017.07.002, arXiv:1703.05062v2
- An algebraic geometry version of the Kakeya problem, *Finite Fields and Their Applications*, **37** (2016), 158-178, https://doi.org/10.1016/j.ffa.2015.09.005, arXiv:1410.3701
- The Hilbert polynomial of a symbolic square, *Communications in Algebra*, **44** (2016), no 3, 1265–1274, DOI: 10.1080/00927872.2015.1023954, arXiv:1208.1109v4
- Variants of the Kakeya problem over an algebraically closed field, *Archiv der Mathematik*, **103** (2014), no. 3, 267–277, DOI: 10.1007/s00013-014-0685-6, arXiv:1410.4328.
- The moduli space of hypersurfaces whose singular locus has high dimension, *Mathematische Zeitschrift*, **279** (2015), no. 1, 139–162, DOI: 10.1007/s00209-014-1360-0, arXiv:1208.1118v2

RESEARCH PROGRAMS

Centre International de Rencontres Mathématiques (CIRM). Participation in the Spring 2015 program on Artin Approximation and Singularity Theory.

Institute for Pure and Applied Mathematics at UCLA. Fellow in the Spring 2014 Program on Combinatorial and Computational Geometry.

HONORS AND AWARDS

David Mumford Undergraduate Mathematics Prize, Harvard University, May 2007.

Thomas Hoopes senior thesis prize, Harvard University, May 2007.

Herchel Smith Fellowship for study at Emmanuel College, Cambridge University.

Phi Beta Kappa, Harvard University, junior 24, Spring 2006.

Derek Bok Center Certificate of Distinction in Teaching, Harvard University, Spring 2006.