Yifei Zhao — Curriculum Vitae

Contact Information

Science Center 321g
1 Oxford Street
Cambridge, MA 02138

mobile: (202) 286 3390
e-mail: yifei@math.harvard.edu
website: www.math.harvard.edu/∼yifei

Research Interest

Algebraic Geometry and Representation Theory.

Education

Harvard University, Cambridge, MA — **2015-Present**

Ph.D. Candidate in Mathematics;

Advisor: Dennis Gaitsgory.

Columbia University, New York, NY — **2011-2015**

B.A. in Mathematics, (Junior) Phi Beta Kappa;

Thesis: *On Stability of Vector Bundles*; Advisor: Aise Johan de Jong.

Papers and Preprints

Zhao, Yifei. *Quantum parameters of the geometric Langlands theory*, Preprint (2017), arXiv:1708.05108.

Zhao, Yifei. *Maximally Frobenius-destabilized vector bundles over smooth algebraic curves*. International Journal of Mathematics **28.02** (2017): 1750003. arXiv:1408.5117

McNamara, Jacob, and Yifei Zhao. *Limiting behavior of Donaldson's heat flow on non-Kähler surfaces*, Preprint (2014), arXiv:1403.8037.

Adler, Jeffrey D., Michael Cassel, Joshua M. Lansky, Emma Morgan, and Yifei Zhao. *Lifting representations of finite reductive groups: a character relation.* Involve, a Journal of Mathematics **9.5** (2016): 805-812. arXiv:1205.6448

Teaching Experience

Teaching fellow at Harvard University — **2016-present**

- Honors linear algebra and real analysis I, 25a;
- Multivariable calculus, 21a.

Teaching assistant at Columbia University — **2012-2015**

- Analysis and optimization, V2500;
- Honors linear algebra, V2020;
- Complex variables, W3007;
- Intro to modern analysis II, W4062;
- Calculus I, W1101.

Talks

Cayley-Hamilton theorem and Eichler-Shimura relations, at AIM workshop on global Langlands correspondence — **2016**

Graduate student seminars at Harvard University — **2015-present**

- Seminar on ind-coherent sheaves and derived algebraic geometry (organizer);
- Grothendieck's specialization theorems for étale fundamental groups;
- Bondal-Orlov reconstruction theorem.

Undergraduate Mathematics Society at Columbia University — **2011-2015**

- The de Rham theorem and Poincaré duality theorem on manifolds;
- Siegel's theorem on the algebraic dependence of meromorphic functions;
- Serre's GAGA theorems;
- Freyd's adjoint functor theorem, and many other topics.

Awards	*The John Dash Van Buren, Jr. Prize in Mathematics*, Columbia College Awarded to one student in the graduating class;	**2015**
	The Professor Van Amringe Mathematics Prize, Columbia College Awarded to a first-year, a sophomore, and a junior student;	**2012, 2013, 2014**
Programming Languages	C, C++, UNIX, LaTeX	