

Masoud Kamgarpour

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Research interest

- Geometric representation theory, character sheaves, local Langlands and its geometric counterpart.
- Algebraic geometry over arbitrary characteristic, algebraic groups and stacks
- Representation theory of nilpotent groups over finite and local fields, especially the relationship to the Heisenberg groups and Weil representations.

Education

- **University of Chicago** Chicago, IL
Ph.D. in Mathematics June 2008
 - Advisor: Vladimir Drinfeld
 - Area of concentration: interaction between algebraic geometry and representation theory.
- **University of Waterloo** Waterloo, ON
Bachelor's in Mathematics August 2003

Publications and preprints

- *Stacky abelianization of algebraic groups*, To appear in Transformation Groups, arXiv:0711.3023.
- *Compatible intertwiners for representations of finite nilpotent groups*, Joint with T. Thomas, submitted to Representation Theory, arXiv:0909.5670.
- *Maximum representation dimension of groups of order p^n* , Joint with S. Cernele, and Z. Reichstein, submitted to Journal of Group Theory, arXiv: 0911.0637.
- *Weil representation and symplectic K -theory*, available at <http://www.masoudkamgarpour.com/texts/masterthesis.pdf>.

Selected talks

- *Intertwiners for representations of nilpotent groups*, geometric representation theory seminar, University of Toronto, November 2009
- *Intertwiners and K -theory*, algebraic groups seminar, University of British Columbia, October 2009
- *Extensions and cohomology*, algebraic groups seminar, University of British Columbia, February 2008
- *Stacky abelianization of algebraic groups*, representation theory seminar, University of California, Berkeley
- *Central extensions of algebraic groups*, algebraic geometry seminar, Northwestern University

Teaching experience

- Organizer, *Seminar on etale cohomology*, UBC, Fall 2008
- Lecturer, *Linear algebra and its application in engineering*, UBC, Summer 2008.
- Lecturer, *Pre-calculus*, University of Chicago, 2006-2008

- Lecturer, *Introductory calculus*, University of Chicago, 2005-2006
- Teaching assistant, *Topology, algebra, and representation theory*, University of Chicago, 2004-2005

Awards

- National Science and Engineering Research Council of Canada (NSERC) Postdoctoral Fellowship (2 years)
- NSERC Graduate Student Fellowship (5 years)
- Lawrence and Josephine Graves Prize for Excellence in Teaching, 2005
- K.D. Fryer Gold Medal for best undergraduate student
- NSERC Undergraduate Research Fellowship (2 summers)
- Placed top 9 in Canadian Mathematical Olympiad
- Ranked first in Canada-USA Mathematics League

References

- Vladimir Drinfeld, University of Chicago, drinfeld@math.uchicago.edu
- Alexander Beilinson, University of Chicago, sasha@math.uchicago.edu
- David Kazhdan, Hebrew University of Jerusalem, kazhdan.david@gmail.com
- Zinovy Reichstein, University of British Columbia, reichst@math.ubc.ca
- David Ben-Zvi, University of Texas at Austin, david.benzvi@gmail.com
- Madhav Nori, University of Chicago, nori@math.uchicago.edu
- Richard Froese (Teaching), University of British Columbia, rfroese@math.ubc.ca