

Xinwen Zhu

CONTACT 1061 Evans Hall *email*:xinwenz@math.berkeley.edu
INFORMATION Department of Mathematics *url*:http://math.berkeley.edu/~xinwenz/
University of California at Berkeley
Berkeley, CA 94720

RESEARCH Representation theory and algebraic geometry
INTERESTS

EDUCATION **University of California at Berkeley**, Berkeley, California, USA
Ph.D., Department of mathematics, 2004-2009(Expected)
Thesis Topic: Gerbal representation of double loop groups
Advisor:Professor Edward Frenkel

Peking University, Beijing, China
A.B., Department of mathematics, 2000-2004

TEACHING Math 1B, Calculus II, Fall 2004
Math 53, Multi-variable Calculus, Spring 2005
Math 53, Multi-variable Calculus, Fall 2006

AWARDS Taizhao Research Fellowship, Peking University, 2002-2004
Gold Metal of CMO (Chinese Mathematical Olympiad), 2000

SELECTED TALKS *Basic representations of simply-laced affine algebras via affine Springer fibers*

- Geometry Seminar, Hong Kong Univ. of Science and Technology, January 2008
- Infinite Dimensional Algebra Seminar, MIT, April 2008
- Geometry, Symmetry and Physics Seminar, Yale University, April 2008
- Representation Theory, Geometry, and Combinatorics Seminar, UC Berkeley, October 2008

 H^3 and gerbal extensions

- Towards 2-dimensional Geometric Langlands Correspondence Seminar, IAS, April 2008
- Algebra Seminar, University of Virginia, April 2008

Any flat bundle on a punctured disc has an oper structure

- Geometry/Physics Seminar, Northwestern University, January 2009

An overview of geometric Langlands program

- Special Seminar, Hong Kong Univ. of Science and Technology, January 2008

BIBLIOGRAPHY

- [1] *Affine Demazure modules and T -fixed point subschemes in the affine Grassmannian*, to appear in Adv. Math., arXiv:0710.5247.
- [2] (with Edward Frenkel) *Gerbal representations of double loop groups*, arXiv:0810.1487
- [3] (with Edward Frenkel) *Any flat bundle on a punctured disc has an oper structure*, arXiv:0811.3186
- [4] *Basic representations via affine Springer fibers*, in preparation
- [5] (with Edward Frenkel) *Gerbal representations of Lie algebras*, in preparation