Takashi Kimura

Curriculum Vitae

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Education 1990 Ph.D., Physics, State University of New York, Stony Brook, New York. **B.S.**, **Physics**, *California Institute of Technology*, Pasadena, California. 1984 Experience Positions 7/2011-6/2012 Director of Graduate Studies, Department of Mathematics and Statistics, Boston University, Boston, Massachusetts. 9/2009 -Professor. Present Department of Mathematics and Statistics, Boston University; Boston, Massachusetts 9/2001 -Associate Professor. 8/2009 Department of Mathematics and Statistics, Boston University; Boston, Massachusetts 9/1995 -Assistant Professor. 8/2001 Department of Mathematics and Statistics, Boston University; Boston Massachusetts 9/1993 -National Science Foundation Postdoctoral Fellow. 8/1995 Department of Mathematics; University of North Carolina; Chapel Hill, North Carolina National Science Foundation Postdoctoral Fellow. 9/1992 -8/1993 Department of Mathematics; University of Pennsylvania; Philadelphia, Pennsylvania 9/1990 -Lecturer. 8/1992 Department of Mathematics; University of Texas; Austin, Texas Short Term Positions 9/1/2002 -Member, On leave from Boston University. 6/30/2003 School of Mathematics; Institute for Advanced Study; Princeton, New Jersey 9/1/1996 -Visiting Professor, On leave from Boston University. 9/1/1997 Max Planck Institut für Mathematik; Bonn, Germany Visitor, Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France. Multiple visits 6/1/1996-8/31/1996, 7/1/2003-8/31/2003, 6/15/2004-8/15/2004, 7/5/2006-8/5/2006, 7/20/2009-8/20/2009. Grant Support

2/3/2010 – **National Security Agency Grant**, *Group Actions, Orbicurves, and Topological Field* 2/2/2012 *Theory*, with co-PI Jarvis.

- 9/2006 National Science Foundation Grant DMS-0605172, Collaborative Research: Stringy 8/2009 Invariants, Orbicurves, and Topological Field Theory, with co-PI Jarvis.
- 9/2002 Supported by the Institute for Advanced Study under *National Science Founda*-7/2003 *tion Grant* DMS-9729992.
- 7/2002 National Science Foundation Grant DMS-0204824, Orbifolds, Higher Spin Curves, 6/2005 and Algebraic Structures.
- 8/1998 **National Science Foundation Grant DMS-9803427**, *Moduli Spaces: Their Topol-*7/2001 ogy and Representations.

Various **Project Director (9/1999-8/2008, 9/2009-8/2013)**, *Graduate Assistance in Areas* 9/1998-8/2013 *of National Need (GAANN) Grant*, U.S. Department of Education.

Selected Publications

- Logarithmic trace and orbifold products, with D. Edidin, T. Jarvis, Duke Mathematical Journal 153 No. 3 (2010), 427 – 473.
- Stringy K-theory and the Chern character, with R. Kaufmann, T. Jarvis, Inventiones Mathematicae 168 (2007) 23-81, arxiv.math/0502280.
- A genus-3 topological recursion relation, with X. Liu, Communications in Mathematical Physics 262 (2006), 645–661, math.DG/0502457.
- Pointed admissible G-covers and G-equivariant cohomological field theories, with R. Kaufmann, T. Jarvis, Compositio Mathematica 141 (2005), no. 4, 926–978, math.AG/0302316.
- Moduli spaces of higher spin curves and integrable hierarchies, with T. Jarvis and A. Vaintrob, Compositio Math **126** (2001) 157–212, math.AG/9905034.
- On the operad structures of moduli spaces and string theory, hep-th/9307114, Communications in Mathematical Physics 171 (1995) 1–25, with J. Stasheff and A. A. Voronov.

Graduate Students

Ross Sweet, *Ph.D. 2013*, Thesis title: Equivariant topological field theories and G-Extended Frobenius algebras; Position in Fall 2013: Postdoc; Dept. of Math., Northwestern University..

Tomoo Matsumura, *Ph.D. 2007*, Thesis title: Orbifold cohomology of symmetric product orbifolds; Current Position: Postdoc; Dept. of Math., Korea Advanced Institute of Science and Technology (KAIST); Daedeok Science Town, South Korea.

Rafael Diaz, *Ph.D. 2007*, Thesis title: Deformation quantization of the moduli space of flat connections; Current Position: Professor; Instituto de Matematicas y sus Aplicaciones, Universidad Sergio Arboleda; Bogota, Colombia.

Selected Lecture Series

Stringy algebraic structures on orbifolds, I and II, 2007 Workshop on Algebraic geometry and physics: Recent trends in mirror symmetry, Korean Institute for Advanced Study, Seoul, Korea; June 2007.

Equivariant topological quantum field theories and stringy invariants of orbifolds, I, II, and III, *Pathways Lecture Series in Mathematics*, Department of Mathematics; Keio University, Yokohama, Japan; January 2007.