

Christopher Dwyer

Contact Information

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Personal Information

Hobbies: Reading (science fiction, philosophy, fantasy), basketball, Tae-Kwan Doe, Judo, computer programming, accordion and piano playing.

Date of Birth: September 4, 1975

Citizenship: USA

Education:

Doctor of Philosophy in Mathematics,

University of Wisconsin at Madison, August 2005.

Thesis title: *Twisted equivariant K-Theory and twisted Bredon cohomology for proper actions of discrete groups.*

Advisor: Alejandro Adem.

Master of Arts in Mathematics,

University of Wisconsin at Madison, December 2003.

Bachelor of Science in Mathematics,

University of Notre Dame, May 1997.

Research Interests: Equivariant cohomology theories, equivariant stable homotopy theory, twistings of cohomology theories, operator algebras, geometric group theory, orbifold cohomology theories, string theory, mathematical physics, equivariant elliptic cohomology.

Articles and Preprints:

- *Twisted equivariant K-theory for proper actions of discrete groups*, to appear in *K-theory*.
- *Completion in twisted equivariant K-theory*, submitted to *Algebraic and Geometric Topology*.
- *When are there enough twisted orbifold vector bundles?*, preprint.
- *Twisted K-theory and the Baum-Connes conjecture*, joint with Marco Varisco, in preparation.
- *An additive decomposition for twisted equivariant K-theory*, joint with Nansen Petrosyan, in preparation.

Seminars:

Graduate geometry and topology teaching seminar talks, University of Wisconsin.

- *The Chern Character and the Atiyah-Hirzebruch Spectral Sequence*, Fall 2004.
- *Introduction to Equivariant K-Theory*, Spring 2004.
- *Bundle Gerbes and Twisted K-Theory*, Spring 2004.
- *Torsion Invariants of $Spin^c$ -structures on 3-Manifolds*, Fall 2003.

Topology Seminar, Binghamton University

- *Twisted equivariant K-theory for proper actions of discrete groups*. August 2005.
- *A review of twisted K-theory*. January 2007.
- *A Completion theorem for twisted equivariant K-theory*. January 2007.

Invited Talks:

- *A Construction of twisted equivariant K-Theory for a finite group*, Graduate Student Topology Conference, Northwestern University, April 2005.
- *Twisted equivariant K-Theory and twisted Bredon cohomology*, Topology seminar, Northwestern University, April 2005.
- *Twisted equivariant K-Theory and twisted Bredon cohomology*, Topology seminar, University of Notre Dame, April 2005.
- *Twisted equivariant K-theory for proper actions of discrete groups*, Joint Topology/Geometry seminar, Lehigh University and Lafayette College, October 2005.
- *When are there enough twisted orbifold vector bundles?*, AMS special session, AMS sectional meeting in Oxford, Miami University, March 2007.
- *Completion in twisted equivariant K-theory*, Topology/Geometry seminar, Indiana University - Bloomington, March 2007.
- *Completion and twisted equivariant K-theory*, Topology/Geometry seminar, The Pennsylvania State University, April 2007.
- *Completion and twisted equivariant K-theory*, Topology seminar, The Ohio State University-Columbus, May 2007.
- *Completion and twisted equivariant K-theory*, Colloquim, SUNY-Bufallo, October 2007.
- *Completion and twisted equivariant K-theory*, Topology Seminar, Rochester University, November 2007.
- *Twisted equivariant K-theory and the Baum-Connes conjecture*, AMS special session, AMS Sectional Meeting, Tennessee, November 2007.

Conferences attended:

- Workshop on Classifying Spaces for families, Universität Münster, June 2004.
- Knots in Vancouver, University of British Columbia, July 2004.
- Summer School on interactions between Homotopy Theory and Algebra, University of Chicago August 2004.
- Midwest Topology Seminar, Purdue University, October 2004.
- Midwest Topology Conference, Calvin College, February 2005.
- Graduate Student Topology Conference, Northwestern University, April 2005.
- Union College Mathematics Conference, Union College, December 2005.
- Cornell Topology Festival, Cornell University, May 2006.
- Lehigh Geometry/Topology Conference, Lehigh University, June 2006.
- Groups in Geometry and Topology, University of Málaga, August 2006.
- Oberwolfach Arbeitsgemeinschaft mit aktuellem Thema: Twisted K-Theory, Mathematisches Forschungsinstitut Oberwolfach, October 2006.
- Frank Quinn's 60th Birthday Conference, Binghamton University, November 2006.
- Geometry, Topology, and their Interactions, An international conference in honor of Farrell-Jones. Morelia (Mexico), January 8th-13th, 2007.
- AMS central sectional meeting, Miami University, Oxford OH, March 2007.

- AMS/PTM joint meeting, University of Warsaw, August 2007.
- Lehigh Geometry/Topology Conference, Lehigh University, October 2007.
- AMS Southeastern section meeting, Middle Tennessee State University, Murfreesboro, TN November 2007.

Teaching and Work experience:

- Math Registration Help Desk, University of Wisconsin-Madison
Fall 2002, Spring 2003, Fall 2003, Spring 2004.
- TA for Mathematics Department, University of Wisconsin-Madison
Fall 2000-Fall 2001, Spring 2003-Spring 2005.
- Grader for Math 551, Fall 2004.
- Tutor, Fall 2000-Fall 2005.
- Webmaster for Topology Seminar webpage at University of Wisconsin-Madison
Fall 2004 - Spring 2005.
- Organizing and Inviting Speakers for Topology Seminar
University of Wisconsin-Madison, Fall 2004.
- Co-organizer for Topology/Geometry Seminar
Binghamton University, Fall 2007.

Classes taught:

University of Wisconsin-Madison

- Instructor:
 - Algebra: Fall 2001, Spring 2003, Summer 2003, Fall 2003.
 - Calculus with Analytic Geometry II: Spring 2004
- Teaching assistant:
 - Calculus with Analytic Geometry II: Fall 2000, Spring 2001.

Binghamton University

- Math 221, Calculus I: Fall 2005.
- Math 222, Calculus II (Two sections): Spring 2006, Spring 2007.
- Math 518, Graduate Algebraic Topology II: Fall 2006.
- Math 575A, Working with Topology - Topics for teachers: Summer 2007.
- Math 461, Undergraduate Topology I: Fall 2007.
- Math 601A, Orbifolds and Equivariant Topology: Fall 2007.
- Math 590T, Toeholds in Topology (graduate topology seminar): Fall 2006, Spring 2007, Fall 2007.

Awards and Honors:

- Excellence in Teaching, May 2004.
- VIGRE Fellowship, 2002 calander year.

Professional Service:

- Workshop Coordinator for the College of Engineering Teaching Improvement Program
University of Wisconsin-Madison, January 2005.
- TA Evaluation Committe, Mathematics Department,
University of Wisconsin-Madison, Fall 2004 - Spring 2005.
- Anderson Room Committe, Mathematics Department,
Binghamton University, Fall 2005 - Fall 2007.

- Undergraduate Math Club faculty advisor, Fall 2005 - Fall 2007.
- Faculty Coordinator for the Undergraduate MAA Seaway section, Binghamton University. Fall 2005 - Fall 2007.
- Department Summer Chair, Mathematics Department, Binghamton University, Summer 2007.

Professional organizations:

American Mathematical Society (AMS), since 2000
Mathematical Association of America (MAA), since 2000
Group Action Forum (GAF), since 2007