

Benjiman C. Tharp

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Education

Ph.D. in Mathematics, in progress (expected 2017), University of Oklahoma.
Thesis: *On the representation theory of the marked Brauer algebra*
Advisor: Dr. Jonathan Kujawa
M.A. in Mathematics, May 2010, Murray State University.
Thesis: *A notion of eigenvalues for real symmetric tensors*
Advisor: Dr. Tan Zhang
B.S. in Mathematics, December 2008, Murray State University.
Departmental honors, *summa cum laude*.
A.A.S. in Information Technology, May 2006, West Kentucky Community and Technical College.
Certificates earned in A+ hardware/software, CCNA, MCSA, and MCSE.

Academic Positions

Graduate Teaching Assistant, University of Oklahoma, Fall 2010 to Present.
Graduate Assistant, Murray State University, Spring 2009 to Spring 2010.

Awards

University-wide:

2016 - Bullard Dissertation Completion Award, University of Oklahoma.

Departmental:

2014 - Richard V. Andree Memorial Scholarship, University of Oklahoma.
2013 - Nancy Scofield Hester Mathematics Scholarship, University of Oklahoma.
2008 - Outstanding Senior Mathematics Student, Murray State University.

Research Interests

Representation Theory, Lie Theory, Diagrammatic Algebras, Algebraic Combinatorics.

Publications

1. The marked Brauer category (with Jonathan R. Kujawa),
Journal of the London Mathematical Society, to appear.
2. Representations of the marked Brauer algebra,
in preparation.

Talks Given

1. On the representation theory of the marked Brauer algebra,
AMS-MAA Joint Mathematics Meetings, January 7, 2017.
2. Diagrams in Representation Theory,
OU Graduate Student Seminar, November 21, 2016.
3. The Marked Brauer Algebra,
OU Algebra and Representation Theory Seminar, March 11, 2016.
4. Diagram Categories,
OU Student Category Theory Seminar, December 3, 2015.
5. Deligne's Category, Part II,
OU Student Category Theory Seminar, April 1, 2015.
6. The Marked Brauer Algebra,
TORAS I, March 29, 2015.
7. Deligne's Category, Part I,
OU Student Category Theory Seminar, March 25, 2015.
8. The Brauer Algebra and the Fundamental Theorems of Invariant Theory for $O(V)$,
OU Algebra and Representation Theory Seminar, February 21, 2014.
9. Tor,
OU Student Algebra Seminar, February 7, 2013.
10. An Introduction to Lusternik-Schnirelmann Theory,
OU Student Topology Seminar, December 4, 2012.
11. Eigenvalues of Real Symmetric Tensors,
OU Student Algebra Seminar, September 2010.
12. Introduction to Multilinear Algebra,
OU Student Algebra Seminar, September 2010.
13. A Notion of Eigenvalues for Real Symmetric Tensors,
MSU thesis defense, April 2010.

Conferences Attended

1. AMS-MAA Joint Mathematics Meetings, Atlanta, GA, January 4-7, 2017.
2. Texas-Oklahoma Representations and Automorphic Forms for Students, University of Oklahoma, March 28-29, 2015.
3. Algebraic Lie Theory and Representation Theory, ICMS, September 1-5, 2014.
4. Southeastern Lie Theory Workshop, University of Georgia, May 16-17, 2014.
5. Fall Redbud Topology Conference, University of Oklahoma, November 3, 2012.

Workshops Attended

1. Research School on Algebraic Lie Theory and Representation Theory, University of Glasgow, August 25-29, 2014.
2. Summer School on Multivariate Splines and Their Applications, University of Georgia, May 11-22, 2009.

Teaching Experience

As Primary Instructor:

- Calculus I (Spring 2015, Summer 2015)
- Calculus II (Summer 2013, Summer 2014, Spring 2016)
- College Algebra (Fall 2010, Spring 2011)
- Precalculus for Business, Life and Social Sciences (Fall 2013)
- Precalculus and Trigonometry (Fall 2012, Spring 2014)
- Introductory Algebra (Fall 2009)

As Teaching Assistant:

- Calculus I Discussions (Spring 2013, Fall 2016)
- Calculus II Discussions (Fall 2014)
- Accelerated Calculus III Discussions (Fall 2015)

As Grader:

- Calculus III (Spring 2012)
- Discrete Math (Fall 2011)

- Ordinary Differential Equations (Spring 2012)
- Introduction to Abstract Algebra I (Fall 2011)
- Introduction to Abstract Algebra II (Spring 2014)

Other:

- Directed reading mentor to undergraduate mathematics student (Fall 2016)
Devised a reading plan and supervised weekly meetings with student to discuss topics in algebra and representation theory which fall outside the scope of traditional undergraduate mathematics classes.
- Tutor in OU Math Center (Fall 2010 - present)

Teaching Education

Fall 2010 - Teaching College Math Seminar, University of Oklahoma.