Daniel C Thompson

Massachusetts Institute of Technology
Department of Mathematics
Building 2, Room 333B
77 Massachusetts Avenue
Cambridge, MA 02139-4307

Phone: (479) 856-5739
Email: dthomp@math.mit.edu

Education

Ph.D. Mathematics, MIT, June 2017 (expected).

   Ph.D. supervisor: Pavel Etingof

B.A. Mathematics (Intensive), Yale University, 2012.

   Distinction in the Major

Budapest Semesters in Mathematics, Fall 2010.

   Honors

Research Interests

symplectic reflection algebras, geometric representation theory, quantum and non-commutative algebra

Publications

The global sections of the sheaf of Cherednik algebras of a smooth quadric (with M. Feigin). In preparation.

Holonomic modules over Cherednik algebras, II (with G. Bellamy and P. Etingof). In preparation.

Holonomic modules over Cherednik algebras, I. Pre-print, arXiv:1608.01641, (2016).

The image of the KZ functor for Cherednik algebras of varieties with finite group actions. Submitted. Pre-print, arXiv:1601.01634, (2016).

The structure of the Tutte–Grothendieck ring of ribbon graphs. Rose–Hulman Undergrad. Math. J. **13.2** (2012).

Awards and Fellowships

NSF Graduate Research Fellowship, 2012-2016.

Deforest Senior Mathematical Prize, Yale University, 2012.

Yale College Dean's Research Fellowship in the Sciences, 2009 and 2011.

NSF Research Experiences for Undergraduates, Louisiana State University, 2010.

Teaching

Grader, MIT 18.200 (Discrete Applied Mathematics), Fall 2016.

Recitation instructor, MIT 18.02 (Multivariable Calculus), Fall-January 2015.

Recitation instructor, MIT 18.03 (Ordinary differential equations), Spring 2015.

Mentor, MIT UROP+, Summer 2015.

> Guided an undergraduate student on a research project on the structure of Lie groups.

Mentor, MIT Directed Reading Program, Spring 2015.

> I supervised an undergraduate student as, together, we read Humphreys' book *Representations of Semisimple Lie algebras in the BGG Category O*.

Mentor, MIT PRIMES-USA, 2013.

> Supervised two high school students on original mathematics research projects.

> One student was a regional finalist in the Siemens Competition in Math, Science & Technology. Both students were national Intel semifinalists.

Professional Activities

Co-organizer, MIT Pure Math Graduate Student Seminar, 2013-2014.

President, Yale Undergraduate Mathematics Society, 2011-2012.

Last updated: November 1, 2016