Daniel Barter

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- citizenship: Australia

Education

- PhD, Pure Mathematics, University of Michigan. September 2012 - May 2017. Specialized in category theory and representation theory. Thesis: Some Remarks about the Interaction between Quantum Algebra and Representation Stability.
- B.Sc with First Class Honours and University Medal, Pure Mathematics, University of Sydney. March 2008 - December 2011.

Employment

- Australian National University. February 2018 - . Postdoctoral fellow. Working on topological phases of matter and low dimensional categories.
- University of Sydney. August 2017 - January 2018. Postdoctoral researcher in Physics. Thinking about topological phases of matter.
- University of Michigan. September 2012 - May 2016. Graduate student instructor for calculus 1, 2 and 3. Taught classes with 20-30 students, three times a week. Held office hours. Helped students use Mathematica. Graded homework/exams.
- University of Sydney. March 2011 - June 2012. Tutor for calculus 1 and 2. Supervised problem sessions and graded homework/exams.

Preprints

- Noetherianity and rooted trees. arXiv:1509.04228
- A remark about 6j symbols and young semi-normal form. arXiv:1610.05248
- Computing the minimal model for the quantum symmetric algebra. arXiv:1610.05204
- Eigenvalues of rotations and braids in spherical fusion categories. Joint with Corey Jones and Henry Tucker. arXiv:1611.00071
- Deligne categories and representations of the infinite symmetric group. Joint with Inna Entova-Aizenbud and Thorsten Heidersdorf. arXiv:1706.03645

Invited Talks

- Michigan theoretical computer science seminar, 2014, *Tensor rank and stability in representation theory.*
- Berkeley combinatorics seminar, 2015, *Combinatorial categories, configuration spaces and tensorial species.*
- Scott's Kioloa conference, *2017, One way Modular Tensor Categories arise in condensed matter physics.*
- University of Sydney Quantum Information Seminar, 2018, *Fusion categories, 2D LRE topological phases and Brauer-Picard rings.*
- University of Sydney Algebra Seminar, 2018, *Fusion categories and (2+1)-dimensional topological quantum field theory.*