

Cain Edie-Michell - CV

Empolyemt/Education

- 2018 -Present **Vanderbilt University** NTT Assistant Professor
Mentor: [Dietmar Bisch](#)
- 2015-2018 **Australian National University** Doctor of Philosophy (Mathematics)
Advisor: [Asst. Prof. Scott Morrison](#)
Project: [The classification of categories generated by an object of small dimension](#)
- 2011 - 2014 **University of Otago** Bachelor of Science (Hons.)
Advisor: Lisa Orloff Clark
Project: [The ideal structure of Steinberg algebras](#)

Publications

Published

1. *The Brauer-Picard group of fusion categories coming from the ADE subfactors*
International Journal of Math 2018
<https://arxiv.org/abs/1709.04721>
2. *Ideals of Steinberg Algebras of Strongly Effective Groupoids, with Applications to Leavitt Path Algebras*
with Lisa Orloff Clark, Astrid an Huef, and Aidan Sims
In press at the **Transactions of the American Mathematical Society**
<https://arxiv.org/abs/1601.07238>
3. *Uniqueness Theorems for Steinberg Algebras*
with Lisa Orloff Clark
Journal of Algebras and Representation Theory 2015
<https://arxiv.org/abs/1403.4684>

Preprints

1. *Classifying fusion categories \otimes -generated by an object of small Frobenius-Perron dimension*
<https://arxiv.org/abs/1810.05717>
2. *Fusion Rules for $\mathbb{Z}/2\mathbb{Z}$ permutation gauging] with Corey Jones and Julia Plavnik*
<https://arxiv.org/abs/1804.01657>
3. *Equivalences of Graded Categories*
<https://arxiv.org/abs/1711.00645>

Expository Notes

1. *A Field Guide to Categories with A_N Fusion Rules*

with Scott Morrison

<https://arxiv.org/abs/1710.07362>.

Talks

Classifying small dimension bimodules of the hyperfinite type II_1 factor

Vanderbilt Subfactor Seminar, 31st August 2018.

Unitary fusion categories generated by an object of small dimension

ANU PhD defence, 18th April 2018.

The Brauer-Picard groups

Kioloa workshop, 16th November 2017.

Planar algebras for the Drinfeld centres of the even parts of the ADE subfactors

Vanderbilt Subfactor Seminar, 6th October 2017.

Planar Algebra Presentations for the Drinfeld Centres of $PSU(2)_q$

UNSW Pure Mathematics Seminar, 8th September 2017.

An almost classification of fusion categories generated by a normal object of dimension less than 2

Special Session on Hopf Algebras and Tensor Categories at the XXII Coloquio Latinoamericano de Algebra in Quito, Ecuador, 7th August 2017.

Equivalences of Graded Categories

Quantum Symmetries: Subfactors and Planar Algebras, Maui, USA, 19th July 2017.

The Brauer-Picard groups of the ADE fusion categories

Hopf Algebras and Tensor Categories in San Diego, 3rd June 2017.

Natural Transformations for Planar Algebras

Quantum Mathematics Meeting, ANU, 10th March 2017.

The Brauer-Picard groups of the ADE fusion categories

AustMS Annual Meeting, ANU, 7th December 2016.

Quantum Computing via Linear Algebra

Graduate Student Seminar, ANU, 17th August 2016.

The Brauer-Picard groups of the ADE fusion categories

Quantum Mathematics Meeting, ANU, 6th May 2016.

Classifying Quadratic Fusion Categories

Workshop on topology and representation theory, Kioloa, Australia, 24th November 2015.

An Introduction to Topological Groupoid Algebras

Graduate Student Seminar, ANU, March 2015.

The Ideal Structure of Steinberg Algebras

Honours Seminar, University of Otago, New Zealand, October 2014.

Teaching Experience

MATH 1300: Accelerated Single-Variable Calculus I

Instructor, Vanderbilt, August - December 2018.