## Nicholas R. Beaton

Contact School of Mathematics and Statistics

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EMPLOYMENT The University of Melbourne, Parkville, Victoria, Australia

School of Mathematics and Statistics

ARC DECRA Research Fellow January 2017 – present

The University of Saskatchewan, Saskatoon, Saskatchewan, Canada

Department of Mathematics and Statistics

PIMS Postdoctoral Fellow December 2014 – December 2016

The University of Melbourne, Parkville, VIC, Australia

ARC Centre of Excellence for Mathematics and Statistics of Complex Systems (MASCOS)

Department of Mathematics and Statistics

Research Assistant and Casual Lecturer January – December 2014

Laboratoire d'Informatique de Paris Nord (LIPN)

Institut Galilée

Université Paris-Nord Villetaneuse, France

Postdoctoral Researcher (ANR Project MAGNUM)

November 2012 - October 2013

EDUCATION The University of Melbourne, Parkville, VIC, Australia

Doctor of Philosophy 2009 – 2012

- Thesis topic: Combinatorics of Lattice Paths and Polygons
- Advisor: Prof. Anthony J. Guttmann

The University of Queensland, St. Lucia, QLD, Australia

BSc (Hons) – Mathematics 2005 - 2008

• University Medal and Graduate of the Year (2008)

TEACHING The University of Melbourne, Parkville, VIC, Australia

MAST10007 Linear Algebra

MAST30028 Numerical and Symbolic Mathematics

MAST10005 Calculus I

Semester 1, 2014

Semester 1, 2014

The University of Saskatchewan, Saskatoon, Saskatchewan, Canada

MATH 327 Graph Theory
Term 2, 2015-2016
STAT 241 Probability Theory
Term 1, 2015-2016
MATH 328 Combinatorics and Enumeration
Term 2, 2014-2015
STAT 241 Probability Theory
Term 2, 2014-2015

Research Interests My research interests are in statistical mechanics, particularly lattice models of walks, polygons, animals and trees, and their applications to modelling interacting polymer systems. Problems in these fields are also frequently connected with complex analysis, stochastic processes and algorithms for counting and simulating discrete structures.

**GRANTS** 

Discovery Early Career Researcher Award (DECRA) from the Australian Research Council (ARC)

2017-2020

Publications & Selected Presentations See the attached Publication List.

Conference Organisation  $\hbox{Co-organiser (Proceedings Editor) of the $31^{\rm st}$ International Conference on Formal Power Series and Algebraic Conference on Formal Power Series and Conference On Formal Power$ 

Combinatorics (FPSAC 2019) July 1–5, 2019

University of Ljubljana, Ljubljana, Slovenia

Co-organiser (Proceedings Editor) of the  $29^{th}$  International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2017)

July 9-13, 2017

Queen Mary University of London, London, UK

Co-organiser of three Contributed Minisymposia on Combinatorics, topology and statistical mechanics of polymer models

11th Biennial Canadian Discrete and Algorithmic Mathematics Conference (CanaDAM)

June 1-4, 2015

University of Saskatchewan, Saskatoon, Canada

Outreach  $\mathring{\sigma}$ Engagement Member of the Advisory Board for Journal of Physics A: Mathematical and Theoretical.

Volunteer for *MathsCraft* events, which connect mathematicians with high school students and teachers at events focused on open-ended mathematical problems and thinking like a researcher.

Co-organiser of the Australian National Science Quiz 2017.

Multiple-time performer at *The Laborastory*, a monthly science-based storytelling event held in Melbourne, Australia. See my website for recordings of my performances.

Speaker at *Café Scientifique*, a monthly event held in cities around the world for scientists and like-minded people to discuss the latest advances in science and technology.