Nicholas R. Beaton

Contact

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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 **Semester 1, 2018**
MAST30028 Numerical and Symbolic Mathematics **Semester 2, 2014**
MAST10005 Calculus I **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 combinatorics and statistical mechanics, particularly lattice models of walks, polygons, animals and trees. 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) **2017–2020**
from the Australian Research Council (ARC)

Publications & Selected Presentations

See the attached Publication List.

Conference Organisation

Co-organiser (Proceedings Editor) of the 31st International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2019)
July 1–5, 2019
University of Ljubljana, Ljubljana, Slovenia

Co-organiser (Proceedings Editor) of the 29th 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 & 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.