





# Andrew Connell


## Statistical Researcher


 +44 7342 211 819

 connell.rbind.io

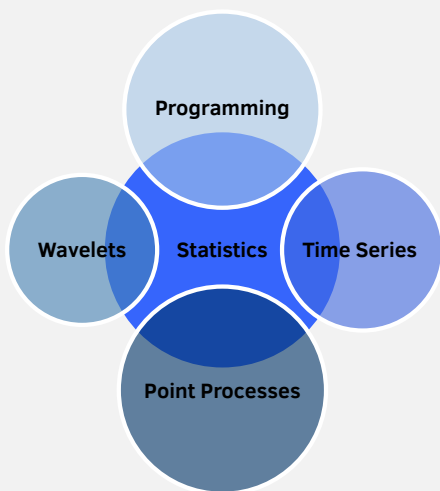
 amc19@ic.ac.uk

 /in/andrewmconnell/

 AndrewC1998

 Huxley Building, SW7 2AZ

## Technical Skills



## Education

**BSc, Mathematics with Statistics**  
FIRST CLASS (HONS)  
Lancaster University  
2016 - 2019 | Lancaster, UK

**MSc, Statistics (Theory & Methods)**  
DISTINCTION  
Imperial College London  
2019 - 2020 | London, UK

**PhD, Mathematical Statistics**  
Supervisors: E. McCoy & E. Cohen  
Imperial College London  
2020 - Present | London, UK

## References

- Prof. R Killick** - Lancaster University
- Prof. E McCoy** - LSE
- Dr. E Cohen** - Imperial College

## Experience

- Oct 2020 - Present

**Graduate Teaching Assistant - Imperial College London** Imperial  
Leadership role as senior GTA with extensive experience across multiple departments; delivering lectures; and designing materials for Statistics, Game Theory, & Statistical Learning courses as well as content creation for the MSc Statistics, MSc Machine Learning and Data Science, and several Data Science Challenges.
- Oct 2020 - Present

**Visiting Student - London School of Economics** LSE  
Gained access to world-leading academics from both LSE & Imperial and conducted research under the guidance of my PhD co-supervisor.
- June 2019 - Present

**Private Tutoring** Elite Prep  
Tutoring, covering foundational to advanced mathematics, statistics, & computing for multiple education systems, including GCSE, A-Level, IB, SATs & ACTs, & Abitur. Also, delivery of statistical literacy & CPD sessions for professionals.
- May 2024 - July 2024

**Guest Lecturer & Teaching Assistant - Washington St Louis** CIEE  
Co-teaching of Differential Equations for study abroad students at CIEE including creating & delivery of content: exams, coursework, & lectures.
- Sep 2020 - Sep 2023

**PhD Statistics Representative - Imperial College London** Imperial  
Advocate for PhD students addressing needs and welfare concerns by organising reading groups, socials, & events.
- Sep 2019 - Sep 2020

**Post-Graduate Representative** Imperial  
Supporting MSc students before & during COVID-19 pandemic remote learning.
- March 2018 - June 2019

**Team Leader - Enactus Lancaster** Enactus  
Project management of nine projects ensuring all projects were on schedule and well-resourced to positively impact beneficiaries through entrepreneurial action.
- Sep 2016 - Sep 2019

**Mathematics Ambassador & Lead Representative** Lancaster University  
Representative for students at faculty council meetings. Lead Representative in final year, chairing meetings and resolving student issues. Invited post-graduation to outline the benefits of a Mathematics degree to prospective students.

## Research

- May 2018 - Aug 2018

**Google Summer of Code & R Project Developer** Google  
**An exact online method for multiple changepoint detection for non-stationary data streams**  
Worked with Prof. R Killick & Prof. D Matteson to develop a novel computational method for changepoint detection in an online setting.
- May 2019 - Aug 2019

**Second Order Structure in the Changepoint Package**  
Added new functionality to the changepoint package that could detect changes in dependence using exact search methodology. The change in second order structure algorithms include the commonly used AR(p) structure & changes in variance & autocovariance through the Locally Stationary Wavelet model.
- May 2020 - Sep 2020

**Imperial College London** Imperial  
**Identifiability of Self-Exciting Point Processes**  
The thesis provided new work for deriving the Fisher Information, the negative moments & an exact identifiability condition for Hawkes Processes.
- Oct 2020 - Present

**Imperial College London** Imperial  
**Novel Methods for Self-Exciting Point Processes**  
Introduced new theory for point processes during PhD with projects including: Identifiability constraints for Self-Exciting Point Processes & Wavelet Estimation of Hawkes Processes.

## Other Skills & Information

- Jan 2005 - present

**Musician & Actor**  
A keen musician with concert band experience. Instruments include piano and woodwind with ABRSM grades & music theory. Gold LAMDA award (distinction) in drama. Co-founded Imperial's Sea Shanty Choir for communal singing.
- Oct 2017 - present

**Comedian & Broadcaster**  
Co-host of *The Atomic Fridge*, Bailrigg FM, interviewing academics on mathematics, physics, & statistics. Performer of stand-up comedy at various venues around London.
- Jan 2021 - Sep 2023

**Events Organiser**  
Organised & managed events for Sunflower Dance Collective, handling logistics, equipment, sound, & lighting; bar management including inventory, staffing, & customer service; liaised with acts; and oversaw photography for promotional content.
- Jan 2005 - present

**Climber**  
Active member of Imperial College Mountaineering Club (ICMC) & London climbing community, contributing to operations & events, with experience in bouldering, lead, & trad climbing. Developed a costing site for London Climbing Centres to improve efficiency.