

Ayesha Hussain

School of Mathematics – University of Bristol – Bristol, UK, BS8 1TH

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*3rd year PhD student interested in Analytic Number Theory,
with particular focus on random multiplicative functions.*

Research

The Limiting Distribution of Character Sums: <https://arxiv.org/abs/2010.06967>

Submitted

Education

University of Bristol

PhD Student

2018–Present

Advised by Dr Jonathan Bober.

University of Durham (Grey College)

Integrated Masters Student, 1st Class

2013–2017

Final year project titled *The Rankin-Selberg Bound: Bounding the Fourier Coefficients of Cusp Forms Using the Rankin-Selberg Method.*

Advised by Dr Jens Funke and Dr Thanasis Bouganis.

Teaching Experience

University of Bristol

Undergraduate Tutor

Autumn 2018 – Present

- Exam marker Mathematics 1A20 module (Spring 2021)
- Perspectives in Mathematics (Autumn 2020)
- First year Mathematics 1A20 module tutor (Autumn 2020)
- Analysis B module tutor (Spring 2020),
- Number Theory module homework marker (Spring 2020),
- First year Mathematics 1A20 module tutor (Autumn 2019),
- Engineering Mathematics Teaching Assistant (Autumn 2019),
- Numerical Analysis Teaching Assistant (Spring 2019),
- First year Mathematics 1A20 module tutor (Autumn 2018).

University of Durham

Homework Marker

Autumn 2016 – Spring 2017

Second year Numerical Analysis module homework marker.

Miscellaneous.....

Self Employed

Private Tutor

2011 – Present

One-on-one Mathematics tutor.

- Preparing pupils for 11+, 13+, GCSE, A Level and University Admission examinations.

Seminar Talks

University of Montreal

Mobius ANT Seminar

March 2021

Distributions of Character Sums

University College London

London Junior Number Theory Seminar

March 2021

What Is a Random Multiplicative Function

University of Bristol

Postgraduate Seminar

November 2020

Introduction to Random Multiplicative Functions

University of Bristol

Linfoot Seminar

March 2020

Distributions of Character Sums

University of Bristol

Postgraduate Seminar

November 2019

Paths of Dirichlet Characters

Conference Talks

Virtual Conference

Women In Number Theory and Geometry

January 2021

Distributions of Character Sums

Virtual Conference

3rd BYMAT Conference

December 2020

Distributions of Character Sums

University of Bristol (Virtual)

MINGLE 2020

September 2020

Animals and Counting

University of Warwick

Young Researchers in Algebraic and Analytic Number Theory

November 2019

Paths of Dirichlet Characters

Conferences

Virtual Conference

Women In Number Theory and Geometry

January 2021

Virtual Conference

3rd BYMAT Conference

December 2020

Virtual Conference

Black Heroes of Mathematics Conference

October 2020

University of Bristol

Heilbronn Annual Conference 2020

September 2020

University of Warwick

Young Researchers in Algebraic Number Theory

November 2019

University of Oxford

Warwick-Oxbridge-Manchester-Bristol-London (WOMBL)

September 2019

University of Bristol <i>Heilbronn Annual Conference 2019</i>	September 2019
Grand Hotel San Michele, Cetraro, Italy <i>Symposium on Analytic Number Theory</i>	July 2019
University of Bristol <i>CMI-HIMR Summer School in Computational Number Theory</i>	June 2019
University of Mississippi <i>NSF-CBMS Conference: L-Functions and Multiplicative Number Theory</i>	May 2019
University of Cambridge <i>Warwick-Oxbridge-Manchester-Bristol-London (WOMBL)</i>	January 2019
University of Sheffield <i>Young Researchers in Algebraic Number Theory</i>	November 2018

Outreach

University of Bristol <i>Women and Non-Binary People in Maths: Opportunities for the future</i> Conference co-organiser for the 2 day event.	November 2020
University of Bristol <i>Women in Mathematics Research</i> Main conference organiser promoting studying Maths to A level students.	June 2020
University of Bristol <i>Women and Non-Binary People in Maths: Opportunities for the future</i> Conference co-organiser for the 2 day event.	November 2019
University of Bristol <i>Women in Mathematics Research</i> Gave a workshop on aspects of my research.	September 2019
Cheltenham Science Festival <i>Discover Zone Mathematics Stand</i> Helped showcase interactive Mathematics exhibits for the general public.	June 2019
Walthamstow Hall Senior School <i>Mathematics at Undergraduate Level and Beyond</i> Gave talks to years 10-12 about Mathematics at University.	November 2018
Francis Holland School <i>Mathematics: Applications after School</i> Gave talks to years 10-12 about Mathematics at University.	November 2018

Miscellaneous

Programming Experience: Experience using Latex, Python, HTML, CSS, Java.

Seminar Co-organiser: Linfoot Seminar.

Conference Co-organiser: MINGLE 2019 (annual Bristol postgraduate conference).

Conference Co-organiser: Young Researchers in Mathematics 2021, Young Researchers in Algebraic and Analytic Number Theory 2021.

Conference Organiser: 'Women in Mathematics Research Workshop' 2020 with AMSP.

Reading Group Organiser: Random Multiplicative Functions Reading Group.

References

Dr Jonathan Bober

University of Bristol

PhD supervisor.

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Dr Jens Funke

University of Durham

Final year project supervisor.

jens.funke@durham.ac.uk

Dr Thanasis Bouganis

University of Durham

Final year project supervisor.

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