

Zifan Hua

Tel: +44 787 367 6711 Email: huazifan@gmail.com

Education

University of Nottingham

BSc Hons Maths, GPA: 91.33/100

Core Courses: Algebra, Real Analysis, Complex Analysis, Number Theory

Nottingham

2023/Sep - 2025/Jun

University of Nottingham Ningbo China

BSc Hons Maths w/App Maths, GPA: 81.42/100 (First Year), 86.92/100 (Second Year)

Ningbo

2021/Sep - 2023/Jun

Core Courses: Statistics, Python, Applied Mathematics, Probability, Calculus

Awards: Zhejiang Provincial Government Scholarship, First Prize in International Mathematical Competition (2023/Aug), Second Prize in International Mathematical Competition (2022/Aug), First Prize in UNNC Mathematical Competition (2022/May), First Prize in UNNC Mathematical Competition (2023/May)

Professional Experience

Weekly Undergraduate Seminar in Mathematics: Communication Without Error

Ningbo

Participant and Speaker

2022/Sep - 2023/Jun

Supervisor: Dr. Hamid Reza Daneshpajouh

- Given two talks about the topic.
- Investigate the definition and methods of computation of Shannon Capacity.
- Investigate the method used to calculate the Shannon capacity of cycle graph C_5 introduced by László Lovász that linked linear algebra and combinatorics
- Discuss the latest result and open problems in this area.

Classicalisation of Generalised Swiss Cheeses in Banach spaces

Nottingham

Participant

2024/Jun - 2023/Aug

Supervisor: Dr. Joel Feinstein

- Defining and investigate different kind of non-standard Swiss Cheese such as Cheese with convex bubbles and general open sets, and measuring the Cheese with different ways of measurement such as diameter, perimeter, inner and outer radius.
- Proving the result that $R(X) \neq C(X)$ on Swiss Cheese with convex bubbles using Tietze extension theorem and direct prove.
- Proving the classicalisation Theorem of Generalised Swiss Cheeses using transfinite induction and semi-classicalisation with direct induction.
- Investigate the generality of the coalescence process used in the proof of classicalisation theorem, and formalize the process by a theorem. Then compare the theorem with Zorn's lemma.

Skills

- **Languages:** English, Chinese
- Proficient in C/C++, Python, Rust, \LaTeX