



Nero Ziyu Li

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Interests

- Fractal geometry
- Random graphs
- Dynamical systems
- Complex networks

Education

Ph.D. in Mathematics (Now)

Imperial College London,
United Kingdom
with CDT Random Systems
by University of Oxford

Master by Research

**University of New South
Wales (UNSW Sydney),**
Australia

Bachelor of Science

Ningbo University, China

Awards and grants

December 2021 Heilbronn Scholarship

Funded by Heilbronn Institute for Mathematical Research (HIMR), EPSRC and Department of Mathematics Imperial College London (EP/V521917/1); also by the EPSRC Centre for Doctoral Training (CDT) in Mathematics of Random Systems (EP/S023925/1).

June 2019 New World Mathematics Award

Gold Medal in New World Mathematics Awards (NWMA) 2017 held by Fields Medalist Shing-Tung Yau (2 gold medals and 3 silver medals awarded internationally during 2017-2019).

Conferences and talks

- 2023** Attended workshop in honour of Peter Baxendale at University of Warwick; CDT summer school at Kyoto University, Japan; CHAOS workshop in Nesin Math Village, Turkey.
Invited to present an 1-hour talk at Open University.
- 2022** Attended ICM 2022 overlay; Heilbronn summer workshop at ICMS; Durham Symposium CDT Random Systems summer school; UK-Japan Winter School; Heilbronn Annual Conference.
- 2020** Best talker in UNSW Annual Postgraduate Conference 2020 in pure mathematics session.
- 2019** Attended 42nd Australasian Conference on Combinatorial Mathematics and Combinatorial Computing 2019 (ACCMCC2019) and gave a 20-minute talk. Invited to International Congress of Chinese Mathematicians 2019 and New World Mathematics Awards Ceremony.
- 2017** Was invited to China Fractal and Dynamical System Academic Conference 2017.

Experiences

Reviewer for journals *Physica A* and *FILOMAT*

Life member of the Combinatorial Mathematics Society of Australasia (CMSA); Member of Australian Mathematical Society; Member of London Mathematical Society;
Member of Hate Differential Equations Society

Master ball tier for double battle in Pokémon Sword and Shield, with only ghost Pokémon; Provincial top 100 for Munchee and Xuance Baili in Honor of Kings; London busking & street entertainment License

Publications

Nero Ziyu Li, Fractal dimensions for deterministic and random substitution graph systems, 2022.arXiv:2212.01987.

Nero Ziyu Li and Thomas Britz, On the scale-freeness of random colored substitution networks, *Proc. Amer. Math. Soc.* 152 (2024) 1377-1389.

Z. Li, J. Yao, Q. Wang, Fractality of multiple colored substitution networks, *Phys. A* 525 (2019) 402-408.

Z. Li, Z. Yu, L. Xi, Scale-free effect of substitution networks, *Phys. A* 492 (2018) 1449-1455.