Curriculum Vitae

Binhe Huang

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Education

South China University of Technology, BS in Mathematics — Sept 2020 - June 2024

- GPA: 90.07/100 Rank: 9/71
- Coursework: Linear Algebras, Analysis, Advance Modern Algebras

Southern University of Science and Technology, MSc in Mathematics — Sept 2024 – present

- Supervisor: Vyacheslav Futorny
- GPA: 3.75/4.0 Rank: 1/34
- Coursework: Algebraic Curves, Topics in Algebra, Abstract Algebra II, Algebraic Geometry, Combinatorics

Research Interests

Representation theory of Lie algebras, Quantum groups, Kac-Moody Lie algebras

Personal Reading

- Introduction to Quantum Groups (G. Lusztig) — July 2025 - present
- Representations of Semisimple Lie Algebras in the BGG Category $\mathcal{O}$ (J. E. Humphreys) — Oct 2024 - present
- Introduction to Lie Algebras and Representation Theory (J. E. Humphreys) — Nov 2023 - Nov 2024

Projects

- **Preprint:** *Highest weight modules of simple Lie superalgebras in characteristic 2,* B. Huang, S. Bouarroudj, Q. Ehret, J. A. Ramírez-Bermúdez — Mar 2025 - present
- **Master thesis**: *A survey of quantum groups and ıquantum groups.* — July 2025 - present

Teaching Activities

- Exercise Class of Advanced Linear Algebra I, MA107 — Sept 2024 - Jan 2025
- Exercise Class of Advanced Linear Algebra II, MA111 — Feb 2025 - June 2025

Technologies

- Languages: Chinese (native), English (IELTS: 7.0/9.0 in November, 2025), Cantonese (listening and speaking)
- Skills: LaTeX, Mathematica, Python

Conferences (attended)

2024:

- Sichuan University, Workshop of Algebraic, analysis, geometric structures emerging from quantum field theory, March 1-15
- Guangzhou University, Workshop of Lie theory and related topic in 2024, April 26 - May 1
- SICM, Non-Associative Algebras, Representations and Applications, November 17-23

2025:

- SICM, Shenzhen Thematic Program ”Representation Theory”: Quantum Groups, March 23-27
- SCUT, 2025 SCUT workshop on Lie theory, April 18-21

- SICM, Shenzhen Thematic Program ”Representation Theory”: Vertex Algebras, April 20-26
- SICM, Shenzhen Thematic Program ”Representation Theory”: Lie Algebras, May 25-31
- Nankai University, Workshop on algebras and applications in mathematical physics, June 29 - July 2

Scholarship

National Scholarship for the Year 2025 2025

References

Chair Professor Vyacheslav Futorny vfutorny@gmail.com
Professor Iryna Kashuba ikashuba@gmail.com
Professor Sofiane Bouarroudj sofiane.bouarroudj@nyu.edu
Southern University of Science and Technology https://www.sustech.edu.cn/
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