Aravinth Krishnan Ravi

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https://hippyhippohops.github.io/

Education

2022 – Current **Ph.D. in Mathematics, Kansas State University**
Advisor: Assoc Prof. Dinh-Liem Nguyen

2018 – 2022 **BSc in Mathematical Sciences (Pure Mathematics), Honours (Distinction), Nanyang Technological University**
Thesis title: *A conjecture for the eigenvalues of pseudo-Anosov mappings of surfaces.*
Advisor: Assoc Prof. Andrew James Kricker

Research Publications

In preparation

1. A. Ghanaatian, **Ravi, Aravinth K.**, D. Caragea, N. Albin, and D. Rolles, "Neural network based molecular structure retrieval from coulomb explosion imaging data," 2025.
2. D.-L. Nguyen and **Ravi Aravinth K.**, "Model-based neural network to solve inverse scattering and inverse source problems," 2025.
3. D.-L. Nguyen, **Ravi Aravinth K.**, and N. Nguyen, "Fourier physics-informed neural networks to solve the 3 dimensional inverse source problem," 2025.

Awards & Grants

Awards

2021, 2020 **Nanyang Technological University President Research Scholar**

Talks

Invited Talks

Fall 2025 **10th Annual Meeting of SIAM Central States Section, Fayetteville, Arkansas**
Fall 2024 **9th Annual Meeting of SIAM Central States Section, Kansas City, Missouri**

Contributed Talks

Spring 2025 **International Mathematics and Statistics Student Research Symposium 2025 (Virtual)**
AMS 2025 Spring Central Sectional Meeting, University of Kansas
Spring 2024 **Kansas Mathematics Graduate Student Conference, Kansas State University**

Employment History

Jan 2025 - Current **Graduate Research Assistant**, Physics Department, Kansas State University
May 2022 – Aug 2022 **Researcher**, School of Physical and Mathematical Sciences, Nanyang Technological University

Employment History (continued)

Aug 2021 – Dec 2021 — **Machine Learning Intern**, Communications & Network Department, Institute of Infocomm Research, Agency for Science, Technology and Research, Singapore

Skills

Languages — English

Coding — Python, Matlab

Summer Schools

Fall 2024 — **Applied Harmonic Analysis and Machine Learning Summer School**, Dipartimento di Matematica, Universit'a di Genova Genoa, Italy

Summer 2024 — **OIST-Oxford-SLMath Summer Graduate School on Analysis of Partial Differential Equations 2024, Okinawa Institute of Science and Technology, Japan**

Statistical Learning Theory Crash Course, PhD Program in Computer Science and Systems Engineering of Università degli Studi di Genova, Italy

Academic Appointments

Lecturer — Spring Mathematical Modelling Seminar, Applied Matrix Theory

Recitation Instructor — Calculus I, Applied Matrix Theory, Applied Matrix Theory (Virtual)

References

Available on Request