

Ian Tan

CURRICULUM VITAE

E-mail: yzt0060@auburn.edu

Education:

- PhD candidate, Auburn University, Spring 2021-Present
Advisor: Luke Oeding
- Bachelor of Science in Mathematics, Lee University, 2018

Publications/Preprints:

- L. Oeding, I. Tan, *Four-qubit critical states* (preprint), arXiv:2410.08317
- L. Oeding, I. Tan, *Tensor decompositions with applications to LU and SLOCC equivalence of multipartite pure states*, SIAM Journal on Applied Algebra and Geometry (accepted 2024), arXiv:2402.12542.
- H. Alpert, L. Barham, B. Freidin, I. Tan, A. Weiner, *Generalized van der Waerden Game on an Infinite Board* (submitted for publication), arXiv:2309.11367
- I. Tan, *Counting rotational subsets of the circle under the angle-multiplying map* (submitted for publication), arXiv:2207.03594

Talks:

- University of Georgia, Algebra Seminar, *Tensor decompositions with applications to LU and SLOCC equivalence of multipartite pure states*, Sept 2024.
- Auburn University, Invariant @60 Conference, *Tensor decompositions with applications to LU and SLOCC equivalence of multipartite pure states*, May 2024.
- Auburn University, Algebra Seminar, *Tensor factorizations and orbit classification*, Mar 2024.
- Louisiana State University, Fourth Biennial LSU Music Colloquium, *Linear Algebraic Applications to Twelve-Tone Tonality*, May 2017

Teaching Experience:

- Teaching Assistant, Auburn University
Calculus I and Calculus III
Spring 2021-Present
- Teacher, Greater Alabama Black Belt Region Louis Stokes Alliance for Minority Participation
Summers 2021-2024

- Teacher, EL Pathway Learning Centre, Malaysia 2019-2020
Mathematics and physics; various grade levels
- Teacher, Thomas MacLaren School, Colorado Springs, CO 2018-2019
10th grade Precalculus and 11th grade Calculus

Awards:

- 2023 Dr. J. Earl Perry Endowed Summer Graduate Award
- 2022 Dr. J. Earl Perry Endowed Summer Graduate Award
- 2020 Calder Endowed Graduate Award

Outreach:

- Topological Data Analysis Seminar Fall 2024
Co-organizer with Mauricio Montes
- Mentor, Directed Reading Program Spring 2024
- Mentor, Directed Reading Program Spring 2023
- Volunteer, Alabama Science State Olympiad Spring 2023
- Volunteer, Alabama Science State Olympiad Spring 2022