Tyler W Wang

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Education

University of Illinois Urbana-Champaign Aug 2023 – May 2026
Mathematics BSLAS, Physics BS

- **GPA**: 3.97/4.0
- **Honors:** James Scholar, Dean's List
- **Scholarships:** John Edwards Scott Scholarship
- **Activities:** University of Illinois Astronomical Society

Experience

Course Instructor/Tutor, Varsity Tutors – Online July 2023 — Present

- Designed curricula for classes over the summer to prepare students for the upcoming school year.
- Tutored students nationwide, with a focus on mathematics and physics, at both high school and university levels.
- Developed personalized learning plans to help students achieve their individual goals.

Student Admissions Representative, May 2025 — Aug 2025
University of Illinois – Urbana, Il

- Supported incoming students during New Student Registration by answering questions about campus life.
- Conducted guided campus tours for prospective students, highlighting university programs and student resources.
- Participated in student panels, for audiences of up to 900 guests.

Undergraduate Researcher, Aug 2024 — May 2025
Illinois Mathematics Lab – Urbana, Il

- Conducted research in multiple groups, exploring diverse mathematical problems.
- Investigated the theoretical capabilities of quantum computers in solving graph-related problems as part of a research team.
- Contributed to a project focused on developing digital representations of complex topological spaces to bring abstract mathematical ideas to a wider audience.

Relevant Works

T. Wang, *Precalculus Class Notes* (2024). [Available at class.tylerwang.org/Precalculus]

A. Chalermratananon, C. Guo, G. Lewis, **T. Wang**, *Visualizing the Space of Seifert Fiberings* (2025). [Available at curvesin3manifolds.github.io/article]

Works in Progress

T. Wang, *Constructing Mathematics*. Manuscript in progress (publication timeline unknown). [Draft available at text.tylerwang.org/Book.pdf].

Relevant Coursework

- Algebraic Topology (MATH 525 & MATH 526) [Graduate Level]
- General Topology (MATH 535) [Graduate Level]
- Honors Abstract Algebra (MATH 427)
- Abstract Algebra (MATH 501) [Graduate Level]
- Honors Real Analysis (MATH 424)
- Complex Variables (MATH 448)
- Vector and Tensor Analysis (MATH 481)
- Quantum Physics (PHYS 486)
- Classical Electromagnetism (PHYS 435 & PHYS 436)

Technical Skills

Computational: Python, Mathematica, C/C++, Java, JavaScript, React, HTML, CSS, LaTeX, Windows, MacOS, Linux, Excel.

Languages: English, Chinese (Mandarin), French (Elementary Proficiency).

Academic Interests

Mathematical physics; geometry; algebraic topology; set theory; mathematical logic & foundations