Wei-Lun Tsai
Curriculum Vitae

Department of Mathematics, UofSC
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Employment

2023 – present	**Tenure Track Assistant Professor**, *University of South Carolina.*
2020 – 2023	**Research Postdoctoral Fellow**, *University of Virginia.* Mentor: Professor Ken Ono
August 2021	**Visiting Scientist**, *Max Planck Institute for Mathematics.*
2013 – 2014	**Research Assistant**, *Institute of Mathematics, Academia Sinica.* Mentor: Professor Chia-Fu Yu

Education

2015 – 2020	**Ph.D. in Mathematics**, *Texas A&M University.* Thesis Title: *The distribution of Fourier coefficients of weak Maass forms* Advisor: Professor Riad Masri GPA: 4.0/4.0
2007 – 2012	**B.S. & M.Sc. in Mathematics**, *National Taiwan University.* Advisor: Professor Ki-Seng Tan

Research Interests

Number Theory: automorphic and modular forms, elliptic curves, L-functions, number fields, and partitions.

Preprints (several more in preparation)

1. **On the nonvanishing of central values and derivatives of modular L-functions in families of quadratic twists**, (with A. Burungale and K. Ono), in preparation.

2. **Equidistribution of Fourier coefficients of half-integral weight Maass-Poincaré series**, (with R. Masri), submitted for publication.

3. **Malle's conjecture for $G \times A$, with $G = S_3, S_4, S_5$**, (with R. Masri, F. Thorne, and J. Wang), submitted for for publication.

Publications (omitted in this brief version)

Mentoring

Summer 2023	**Mentor**, *Summer REU*, University of Virginia. Topic: *Arithmetic of Hecke L-functions and class number formulas*
Summer 2022	**Mentor**, *Summer REU*, University of Virginia. Topic: *Distributions of hook lengths*

Summer 2021	**Mentor**, *Summer REU*, University of Virginia.
	Topic: *Tamagawa products for elliptic curves over number fields*
Summer 2020	**Mentor**, *Summer REU*, University of Virginia.
	Topic: *Variants of Lehmer's speculation*
Summer 2019	**Graduate Student Mentor**, *Summer REU*, Texas A&M University.
	Topic: *Asymptotic distribution of the partition crank*
Spring 2019	**Mentor**, *Directed Reading Program*, Texas A&M University.
Fall 2018	**Mentor**, *Directed Reading Program*, Texas A&M University.
Summer 2018	**Graduate Student Mentor**, *Summer REU*, Texas A&M University.
	Topic: *Effective bounds for traces of singular moduli*
Summer 2017	**Graduate Student Mentor**, *Summer REU*, Texas A&M University.
	Topic: *Nonvanishing of Hecke L-functions*

Awards and Grants

2024-2025	**Number Theory Meetings in the Southeast**, *NSA Grant*, (co-PI).
2023-2025	**AMS–Simons Travel Grant**, *AMS & Simons Foundation*.
2015-2020	**Graduate Assistantship**, *Texas A&M University*.
2015-2020	**Graduate Student Travel Grant**, *Texas A&M University*.
2012	**Outstanding Teaching Assistant Award**, *National Taiwan University*.

Teaching Experience

Spring 2024	**Instructor**, *Algebraic Number Theory*, University of South Carolina.
Fall 2023	**Instructor**, *Calculus I* (2 sessions), University of South Carolina.
Spring 2023	**Instructor**, *Survey of Algebra*, University of Virginia.
Spring 2023	**Instructor**, *Calculus III*, University of Virginia.
Fall 2022	**Instructor**, *Calculus III*, University of Virginia.
Summer 2022	**Instructor**, *A Survey of Calculus II*, University of Virginia.
Spring 2022	**Instructor**, *Commutative Algebra*, University of Virginia.
Fall 2021	**Instructor**, *Calculus III* (2 sessions), University of Virginia.
Spring 2021	**Instructor**, *Survey of Algebra*, University of Virginia.
Spring 2021	**Recitation Instructor**, *Basic Real Analysis*, University of Virginia.
Fall 2020	**Instructor**, *Calculus III*, University of Virginia.
Fall 2020	**Recitation Instructor**, *Calculus III*, University of Virginia.
Fall 2019	**Teaching Assistant**, *Engineering Mathematics I*, Texas A&M University.
Fall 2018	**Instructor**, *Mathematical Concepts-Calculus*, Texas A&M University.
Summer 2018	**Instructor**, *Qualifying Exam Prep Course-Complex Analysis*, Texas A&M University.

Referee Service

Annales mathématiques du Québec, Annals of Combinatorics
Expositiones Mathematicae, Houston Journal of Mathematics
International Journal of Number Theory (2 times)
Proceedings of the American Mathematical Society (5 times + 1 quick opinion)
Research in the Mathematical Sciences, Research in Number Theory (5 times)
Taiwanese Journal of Mathematics, The Australasian Journal of Combinatorics
The Ramanujan Journal (2 times)