Shashini Marasinghe Mudiyanselage

CONTACT INFORMATION

Michigan State University   (517) 944-9327
Department of Mathematics   marasin1@msu.edu

RESEARCH INTERESTS

Quantum and low-dimensional topology, Knot theory, Quantum computing, Mathematics education.

EDUCATION

Michigan State University, East Lansing MI
Ph.D. Candidate, Mathematics (expected December 2026)
- Thesis topic: Seifert fibered 3-manifolds and Turaev-Viro invariants volume conjecture.
- Advisor: Professor Efstratia Kalfagianni.

University of Peradeniya, Sri Lanka
B.Sc. Honours degree program in Mathematics, First-class Honours, 2021.

TEACHING EXPERIENCE

Michigan State University

Instructor of Record

MTH 234	Multivariable Calculus 3	Fall 2023, Spring 2024
MTH 124	Survey of Calculus 1	Summer 2022
MTH 101	Quantitative Literacy 1	Summer 2023
MTH 299	Introduction to Proofs	Summer 2025

Teaching Team

MTH 133	Calculus 2	Fall 2021
MTH 124	Survey of Calculus 1	Spring 2022
MTH 101	Quantitative Literacy 1	Fall 2022

Curriculum Development

MTH 101	Quantitative Literacy 1	Spring 2023, Spring 2025
MTH 234	Multivariable Calculus 3	Fall 2023, Spring 2024
MTH 124	Survey of Calculus 1	Summer 2022
MTH 101	Quantitative Literacy 1	Summer 2023
MTH 299	Introduction to Proofs	Summer 2025

Teaching Mentoring
- Instructional Mentoring Lead TA for undergraduate learning assistants: Observed and provided feedback as a long-form.
- Instructional Mentoring Lead TA for graduate second-year teaching assistants: Observed and provided one-on-one mentoring and feedback.
- Resource person for discussion-based instructions for undergraduate learning assistants and first-year teaching assistants.

Professional Development
- CITRL MOOC: An Introduction to Evidence-Based STEM Undergraduate Teaching (Spring 2025).

Research Mentoring
- RTG MSU Summer Topology Program Summer 2023:
  Mentoring two students one-on-one on advanced low-dimensional topics for half of the summer on how to prepare chalk and slide talks and write a mathematics paper.
- Resource person for LaTeX-workshop in Sri Lanka 2024.

PUBLICATIONS

Marasinghe. S, *Seifert fibered 3-manifolds and Turaev-Viro invariants volume conjecture (awaiting arXive submission).*

Detcherry. R, Kalfagianni. E, Marasinghe. S, *Gromov norm and Turaev-Viro invariants of 3-manifolds II: A Gluing theorem (in preparation)*

CONFERENCES & SEMINAR TALKS

6-j symbols, MSU Graduate Geometry and Topology Seminar (2024).

Introduction to the Volume Conjecture, MSU Graduate Geometry and Topology Seminar (2025).

HONORS & AWARDS

TA Award for Excellence in Teaching, Michigan State University	2023-2024
Best Poster Presentation Award, ICCME	2021
Award for Academic Excellence, University of Peradeniya	2021
Dean's list, University of Peradeniya	2018-1019, semester 1
Dean's list, University of Peradeniya	2018-1019, semester 2
Runner-up in EUDOXUS Quiz Competition Mathematical Society, University of Peradeniya.	2018

SERVICES & LEADERSHIPS

Organizer, MSU Graduate Geometry and Topology Seminar	2024-2025
Treasurer, American Mathematical Society, Graduate Student Chapter, MSU.	2022-2023
Secretary, Association for Women in Mathematics, MSU Chapter	2021-2022
Lead TA, MSU	2022-2024
Editor, magazine "Mathéma" University of Peradeniya	2019-2020
Editor, University of Peradeniya	2018-2020
Tutor, Mathematical Bootcamp University of Peradeniya	2018
Vice president, SIAM Student Chapter University of Peradeniya	2020-2021

Skills   LaTeX, Python, LEAN, Adobe Illustrator, LINGO.