

Miraj Chamara Samarakkody

"Dedicated to advancing research and academic excellence in differential geometry, committed to contributing to the growth of both the institute and society with my full potential."

S Rajakaruna Samarakkodige Miraj Chamara Samarakkody

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 mirajcs.github.io

Research Interest

Minimal surfaces, generalized elastic curves, and applications of differential geometry in mathematical physics, biology, and data science.

Professional Experiences

- **Assistant Professor** Spring 2025 - Present
Department of Mathematics and Computer Science, Tougaloo College, MS.
- **Graduate Part-Time Instructor** Fall 2024
Department of Mathematics & Statistics, Texas Tech University, TX.
- **Research Assistant** Spring 2022 - Summer 2024
Mentors: Dr. Hung Tran and Dr. Álvaro Pámpano.
Department of Mathematics & Statistics, Texas Tech University.
- **Graduate Teaching Assistant** Fall 2021
Department of Mathematics & Statistics, Texas Tech University.
- **Lecturer** 2019 - Fall 2021
Department of Mathematics, University of Moratuwa, Sri Lanka.

Short Visits

- **Research Mentor** Summer 2025
Virtual Math Circle, Department of Mathematics, Louisiana State University.

Education

Texas Tech University, TX. Fall 2021 - Spring 2024
Ph.D. in Mathematics, May, 2025.
Advisors: Dr. Hung Tran (Chair), Dr. Álvaro Pámpano (Co-chair).

University of Peradeniya, Sri Lanka. 2014-2018
B.Sc. (Honors) Special in Mathematics.
Advisor: Dr. Shelton Perera.

Languages

- **English** - Excellent Proficiency.
- **Sinhala** - Native Proficiency.

Technical Skills

C, L^AT_EX, Julia, Python, Mathematica, Matlab, Blender, Microsoft Office, Adobe Illustrator and Adobe Premier Pro.

Teaching

Tougaloo College

- **MAT221 - Calculus I;** Fall 2025, Spring 2026
- **MAT222 - Calculus II;** Spring 2025, Spring 2026
- **MAT316 - Differential Equations;** Fall 2025
- **MAT326 - Introduction to Probability;** Fall 2025
- **MAT414 - Modern Algebra;** Spring 2025
- **MAT426 - Advanced Calculus;** Spring 2025, Fall 2025
- **MAT429 - Complex Variables;** Spring 2026
- **MAT434 - Theory of Mathematical Statistics;** Spring 2025, Spring 2026

Texas Tech University

- MATH 1452 - Calculus II with Applications; Fall 2024

Grants

- PI, SCALE Program (Partnership with Purdue University), \$73,094.77.
Project: Microelectronic Workforce Development Project for Radiation-Hardening.

Fellowships

- Dr. Shelby Hildebrand Graduate Math Fellowship - Texas Tech University. 2023-2024
Amount: \$10,000
- AT & T Graduate Fellowship - Texas Tech University 2021-2025
Amount: \$16,000

Awards and Honors

- Create Possible Scholarship - Texas Tech University. 2022
- University Prize for Academic Excellence - University of Peradeniya 2018
- Peradeniya University Alumni Australia Victoria Chapter Scholarship for Academic Excellence in Mathematics 2015

Presentations

Conference Talks

- “*Closed p-Elastic Curves in 2-Space Forms*,” AMS Sectional Meeting (Meeting No: 1198), University of Texas, San Antonio, September 14-15, 2024.
- “*Closed p-Elastic Curves in Spheres of Lorentz-Minkowski Space*.”, Texas Analysis and Mathematical Physics Symposium, Texas A&M University, February 10, 2024.
- “*Geometric Behavior of a Certain Class of Quotients of Finite Blaschke Products*”, ICMME, Post Graduate Institute of Science, University of Peradeniya, March, 2019

Posters

- “*Closed p-Elastic Curves in 2-Space Forms*,” Texas Geometry and Topology Conference (68th Meeting), Texas A&M University, College Station, November 8-10, 2024.

Seminars

- “*On Some Variational Problems in Curves and Surfaces*”- Probability, Differential Geometry and Mathematical Physics Seminar, Texas Tech University (January 21st, 2025).
- “*On Some Variational Problems in Differential Geometry*”- Probability, Differential Geometry and Mathematical Physics Seminar, Texas Tech University (November 01st, 2023).
- “*Minimal Surfaces*”-Probability, Differential Geometry and Mathematical Physics Seminar, Texas Tech University (November 02nd, 2022)

Publications

- A. Pámpano, M. Samarakkody, H. Tran, “*Closed p-Elastic Curves in Spheres of \mathbb{L}^3* ,” JMAA, 542(2):129147, 2025.
- S.R.S.M.C. Samarakkody, P.G.R.S. Ranasinghe, A.A.S. Perera, “*Geometric Behavior of a Certain Class of Quotients of Finite Blaschke Products*,” ICMME, Post Graduate Institute of Science, University of Peradeniya, Vol. 1. (2019).

Leadership and Community Involvement

- “**Commission on Animal Care – Institutional Review Board (IRB)**,” *Member*, Tougaloo College. 2025-2026
- “**Kincheloe Research Symposium**,” *Judge*, Tougaloo College.
- “**Summer Chess Camp 2024**,” *Counselor*, Texas Tech University.
- “**Art & Humanities Conference 2023**,” *Judge*, Texas Tech University.
- “**Math Circle 2023-2024**,” *Mentor*, Department of Mathematics & Statistics, Texas Tech University.

Memberships in Professional Societies

- Member of **American Mathematical Society**. 2021-2025
- Member of **SIAM TTU Chapter**. 2021-2025