

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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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.

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

LaTeX, Julia, Python, Mathematica, Matlab, Lingo, Maple, Microsoft Office, Adobe Illustrator and Adobe Premier Pro.

Teaching

Tougaloo College

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

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

- “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