

Neelam Venkata Prasad Akula

CONTACT INFORMATION

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RESEARCH INTERESTS

My research interests lie in topological machine learning and data analysis.

EDUCATION

University of Texas at Dallas

Ph.D. in Mathematics, Fall 2023 - Present

- Advisor: Dr. Baris Coskunuzer

University of Maryland, College Park

B.S. in Mathematics and Computer Science, May 2023

- Thesis: *Quiver Representations and Auslander-Reiten Theory*
- Advisor: Dr. Amin Gholampour
- Machine Learning Specialization (CS Coursework)

PAPERS AND PUBLICATIONS

1. N.V.P. Akula, *Quiver Representations and Auslander-Reiten Theory*. Bachelor's Thesis. 2023
2. N.V.P Akula, *The knitting algorithm for quivers of type AD*. 2023 (submitted)
3. N.V.P. Akula, M. Lideros, K. O'Connor, N. Hung, Y. Yang, *On conjugacy classes of varying p -regularity level*. 2022 (In preparation)
4. N. Akula, et. al., *Detecting and predicting sleep activity*. COMSNETS, 2022.

TALKS

Quiver Representations and their Applications, II, UMD, College Park, MD, Dec. 2022

Quiver Representations and their Applications, I, UMD, College Park, MD, Dec. 2022

Bounding Conjugacy Classes for Finite Groups, UMD, College Park, MD, Nov. 2022

On Conjugacy Classes of Varying p -regularity Level, JMU, Harrisonburg, VA, Oct. 2022

Investigating Repeating Decimals, UMD, College Park, MD, Dec. 2021

CONFERENCES AND WORKSHOPS

Shenandoah Undergraduate Mathematics and Statistics Conference, James Madison University, October 29, 2022

Mathematics Opportunities in Research and Education, Virginia Tech, October 7-8, 2022

14th International Conference on Communication Systems & Networks, Bengaluru, India, January 3-8, 2022

TEACHING	Linear Algebra (TA, UTD) Linear Algebra (TA, UTD) Calculus II (TA, UTD) Linear Algebra (TA, UTD) Quiver Representations (Instructor, UMD) Algebra I & II (TA, UMD) Algebra I & II (TA, UMD) Algebra I & II (TA, UMD) Algebra I & II (TA, UMD)	Spring 2025 Fall 2024 Spring 2024 Fall 2023 Spring 2023 Spring 2023 Fall 2022 Spring 2022 Fall 2021
ORGANIZATIONS	Algebra and Combinatorics Seminar (UTD) Geometry, Topology, Dynamical Systems Seminar (UTD) Logic Seminar (UMD) Math Club (UMD)	Fall 2023 - Present Fall 2023 - Present Spring 2023 2021 - 2023
MEMBERSHIPS	American Mathematical Society	2024 - Present
SKILLS	Programming: C/C++, Java, MATLAB, Ocaml/Haskell, Python, R ML Frameworks: PyTorch, Tensorflow, Keras, Scikit-Learn Algebra: GAP, Magma, SageMath Tools: Git, Unix/Linux, T _E X, A _M S	