

Naufil Sakran

Curriculum Vitae

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6823, St Charles Avenue
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Education

- 2021-Present **Ph.D. Mathematics**, Tulane University, New Orleans, LA, USA.
2017–2021 **BSc (Hons) in Mathematics**, Government College University, Lahore, Pakistan.

Publications

- Mahir Bilen Can; Naufil Sakran, "On Generalized Wilf Conjecture," (*Submitted 2022*)
- Rabia Arshad; Yasar Mahmood; Muhammad Aslam; Hina Khan; Nasrullah Khan; Naufil Sakran, "Cost Model of Variable Multiple Dependent State Sampling Plan with Rectifying Inspection," in *Communications in Statistics - Simulation and Computation*, DOI: 10.1080/03610918.2021.1905844

Thesis

- **A Review of Equilibrium Point Problem and Its Applications.** *Bachelor's Thesis.* A brief discussion regarding Analytic and Non-Analytic proofs of the Brouwer's fixed point theorem and its applications in Non-Linear Analysis.

Honors & Awards

Research Supports & Travel Grants

- Tulane Graduate Studies Student Association Travel Funding, 2022.

Awards

- Shaikh Safdar Medal - Government College University, Pakistan, 2022.
Awarded to final year Mathematics students for their outstanding academic achievement and contribution towards extra-curricular activities.
- Gold Medal, Academic Role of Honors - Government College University, Pakistan, 2022.
Awarded to outstanding academic achievement of the batch.
- Winner, National Mathematical Olympiad - The Islamia University of Bahawalpur, Pakistan, July 2021.
- Winner, National Calculus Contest - Sukkur IBA University, Pakistan, April 2019.

Conferences & Presentations

Research & Invited Talks

- 11/2023 **Unipotent Numerical Semigroups**, *6th SIAM Texas-Louisiana Sectional Meeting*, University of Louisiana, Lafayette.
- 9/2022 **Generalized Wilf Conjecture**, *Algebra & Combinatorics Seminar*, Tulane University.

Posters

- 2023 **Unipotent Numerical Semigroups**, *BrianFest*, University of Nebraska, Lincoln.
- 2023 **On Unipotent Wilf Conjecture**, *Combinatorial Algebra meets Algebraic Combinatorics*, University of Waterloo, Canada.
- 2022 **On Unipotent Wilf Conjecture**, *Texas Algebraic Geometry Symposium*, Texas A&M University.
- 2022 **Real Nash Geometry**, *Math For All*, Tulane University.

Other Talks

- 9/2022 **Hilbert's 17th Problem**, *Graduate Colloquium*, Tulane University.
- 4/2022 **Ramanujan Congruences**, *Modular Forms Seminar*, Tulane University.
- 2/2022 **Real Root Counting**, *Graduate Colloquium*, Tulane University.
- 2021 **7 Millennium Prize Problems**, *Exploring Mathematics: Undergraduate lecture series*, Government College University.
- 2020 **Sunflower Floret's Pattern**, *Exploring Mathematics: Undergraduate lecture series*, Government College University.
- 2019 **Monte Carlo Simulation and Its Applications**, *Unpacking Mathematics: Undergraduate seminar series*, Government College University.
- 2018 **Affine Cipher**, *Unpacking Mathematics: Undergraduate seminar series*, Government College University.
- 2018 **Gregorian Calendar**, *Unpacking Mathematics: Undergraduate seminar series*, Government College University.

Attended conferences & Workshops

- 2023 **Commutative Algebra Market preparation workshop**, *University of Nebraska, Lincoln*.
- 2022 **50 years of Number Theory & Random Matrices**, *Institute for Advanced Study*.
- 2022 **Macaulay2 Conference**, *Cleveland State University*.
- 2022 **Southern Regional Algebra Conference**, *Georgia College*.
- 2022 **Combina Texas**, *Texas A&M University*.

2019 **International Symposium on Non-Linear Analysis**, *Government College University*.

2019 **One day International Workshop on Algebra & their Applications**, *Government College University*.

Seminars/Conferences (co)-organized

2023 **Southern Regional Algebra Conference 2023**, *Tulane University*.

2020 **Exploring Mathematics: Grad/Undergrad Seminar Series**, *GCU*.

2018 **International Conference On Mathematics & its Applications**, *GCU*.

2018 **Unpacking Mathematics: Undergraduate Seminar Series**, *GCU*.

Teaching

Teaching Assistant

SP 24 **Calculus 3.**

SU, F 23 **Calculus 2.**

SU 23 **Combinatorial Game Theory**, *A playful Introduction*.

Two week long summer course thought to high school students

SP 23 **Intro to Discrete Math.**

F 22 **Linear Algebra.**

F 22 **Stats for Scientist.**

F 21 **Calculus 1.**

SP 22,23

Activities

2023-Present **Co-Founder**, *Mathematics Media*, An international platform to promote mathematics in Pakistan.

2023-Present **Department Representative**, *Graduate Studies Student Association (GSSA)*, Tulane University.

2022-2023 **Vice President**, *American Mathematical Society (AMS)*, Tulane University.

2021-2022 **Secretary**, *Society for Industrial and Applied Mathematics (SIAM)*, Tulane University.

2020-2021 **Senior Vice-President**, *Chawala Mathematical Society*, *Government College University*.

2019-2020 **Finance Secretary**, *Chawala Mathematical Society*, *Government College University*.

2018-2019 **Publicist**, *Chawala Mathematical Society*, *Government College University*.

Skills

- *Matlab*
- *Python*

- *C++*

— Languages

- *Urdu*
- *English*
- *Bahasa Malaysia*
- *Portuguese*