

Kian Shah

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in Kian Shah

🌐 kianshah.in

Overview

A third-year B.Sc. Mathematics and Physics student with a keen interest in Lie theory, differential geometry, and algebraic topology. Eager to contribute to theoretical physics research in these areas, focusing on connections between mathematical structures and physical phenomena.

Education

- 2023 – ····  **B.Sc. Mathematics and Physics (Double Degree), University of Groningen**
Expected Graduation: 2027
Enrolled in Honours college program.
- 2016 – 2023  **Sahyadri School KFI, Pune, India**

Publications

- 1 K. C. Shah and A. V. Kiselev, *The alternating compositions of weighted differential operators yield the weights' wronskian with which constant?* 2026.  DOI: 10.48550/arXiv.2605.11137. arXiv: 2605.11137 [math.CO].
- 2 K. Shah, "Problem 61 from kvpy 2016," *At Right Angles*, vol. 13, pp. 62–63, 2022, ISSN: 2582-1873.  URL: <https://publications.azimpremjiuniversity.edu.in/id/eprint/3756>.

Talks & Posters

- Jul 2026  **Talk - Group36**, 36th International Colloquium on Group Theoretical Methods in Physics, Valladolid, Spain (*upcoming*).
- 2026  **Poster Presentation - ANTS XVII**, Algorithmic Number Theory Symposium. poster / PDF
- Jun 2026  **Talk - Honours College**, University of Groningen. slides

Projects

- 2026  **Polynomial homotopy Lie algebras generated by Wronskian determinants of differential operators**, ongoing Honours project.
- 2025  **Minimal Surfaces Associated With Nonpolynomial Contact Symmetries**, ongoing Honours project.

Teaching experience

- 2025  **Teaching Assistant-** Metric & Topological Spaces $\times$ 2, Functional Analysis, Quantum Physics 1
- 2024  **Graph Theory Workshop**, organized for students at my alma mater, Sahyadri School KFI

Skills

Languages	📖	Native proficiency in English, Hindi, Gujarati.
Coding	📖	Proficient in Java, Python, C/C++, comfortable with OOP, pointers, data structures.
Libraries and Tools	📖	L ^A T _E X, Matplotlib, Manim, Maple, and similar mathematical and visual tools.
Software	📖	Skilled at using Adobe Creative Suite applications, and 3D software Blender.
Music	📖	Multi-instrumentalist: Guitar, Drums, Piano, Tabla.

Extracurricular Activities

2025	📖	Programme Committee Chair of the Student Members - (Applied) Math, Systems and Control.
	📖	Mentor , for first-year (Applied) Mathematics students.
	📖	PromoTeam , (Applied) Mathematics.
2024	📖	Programme Committee Member - (Applied) Math, Systems and Control.