

List of Publications

The contents of this thesis are included in the following papers.

- Chapter 2: Baruah, N. D. and Sarma, A. Sign patterns and congruences of certain infinite products involving the Rogers-Ramanujan continued fraction, *The Ramanujan Journal*, 67(1):Article Number 7, 25 pp., 2025.
- Chapter 3: Baruah, N. D. and Sarma, A. Differences of even and odd numbers of parts of the cubic and some analogous partition functions, *Boletín de la Sociedad Matemática Mexicana*, 29:Article Number 94, 24 pp., 2023.
- Chapter 4: Baruah, N. D. and Sarma, A. Arithmetic properties of 5-regular partitions into distinct parts, *International Journal of Number Theory*, 21(3):657–674, 2025.
- Chapter 5: Sarma, A. Further arithmetic properties of Andrews’ integer partitions with even parts below odd parts, submitted, 2025.
- Chapter 6: Saikia, M. P. and Sarma, A. Further Arithmetic Properties of Overcubic Partition Triples, *Bulletin of the Australian Mathematical Society*, <https://doi.org/10.1017/S000497272400114X>, 2024.
- Chapter 7: Mahanta, P. J., Saikia, M. P. and Sarma, A. Biases in non-unitary partitions, submitted, 2024.

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