

# Finite Ramanujan Expansions and Shifted Convolution Sums

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**Abstract:** We will give a short account of our current work, spanning the three papers of the series "Finite Ramanujan expansions and shifted convolution sums of arithmetical functions". In particular, we will focus on the first paper (jointly written with Ram Murty and B. Saha), where the finite Ramanujan expansions of arbitrary arithmetic functions have been introduced and used within the shifted convolution sums. Then we will present the so-called shifted Ramanujan expansions which are the subject of the second paper (jointly written with Ram Murty). Finally, if time will allow it, we will mention some work in progress about shift averages.

## References

- [1] Coppola, G., Murty, M.Ram and Saha, B. *Finite Ramanujan expansions and shifted convolution sums*, J. Number Theory **174** (2017), 78–92.
- [2] Coppola, G., Murty, M.Ram and Saha, B. *Finite Ramanujan expansions and shifted convolution sums II*, J. Number Theory, To appear.
- [3] Coppola, G. *An Elementary Property of Correlations*, arxiv.org:170906445.