



Dr. Mohan N. Chintamani

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**Area of Research/Research Interest :**

Zero-sum problems in Combinatorial Number Theory

Additive Combinatorics, Combinatorial Number Theory, Cryptography

**Affiliations :**

1. 2013 onward : Assistant Professor at School of Mathematics & Statistics, University of Hyderabad, Hyderabad
2. 2011 - 2012 : Post Doctoral Fellow at Institute of Mathematical Sciences, Chennai
3. 2005 - 2011 : Research Scholar at Harish-Chandra Research Institute, Allahabad
4. 2003 - 2005 : Department of Mathematics, Savitribai Phule Pune University (then University of Pune), Master of Science

**Research Grants/Projects/Awards :**

Mathematical Research Impact Centric Support (MATRICS), given by Science & Engineering Research Board (DST-SERB), Govt. of India) for a period of three years 2020-2023.

**Workshop/conference Organized**

I was one of the Convenors/Organizers for the following programmes.

- Annual Foundation School I (AFS I) 6thMay -01st June 2019, at School of Mathematics & Statistics , University of Hyderabad, Hyderabad
- National Workshop on Number Theory and its Applications (NWNTA 2018) 19-20th March 2018 at School of Mathematics & Statistics University of Hyderabad, Hyderabad
- Workshop on Number Theory & Cryptography, NC-2015, at Department of Mathematics, BITS Goa.

#### **Project/Summer Internship Students :**

1. Mr. Ankush Kanwar, *National Institute of Technology, Rourkel* on Elementary Number Theory: Quadratic Reciprocity Law Duration : 15 May - 25 Jun 2015
2. Miss. Rutuja Kshirsagar, *Birla Institute of Technology and Science, Goa* on *Applications of Number Theory in MIMO Systems* Duration : 4th July - 2nd Dec 2016
3. Mr. Vinodkumar Rajlingappa, *University of Hyderabad* on *Study of Gauss Sums and Reciprocity Laws* (UPE Phase - 2) Duration - 03 Oct 2016 - 30 Jun 2017
4. Miss. Sanajana Srinivasan, *Shiv Nadar University, Delhi* Duration : 3rd Jun - 27th July 2019 - Summer Study (Number Theory)
5. Mr. Manu Prasad, *University of Hyderabad* IMSc Project in Number Theory

#### **Publications :**

1. A Blind Signature Scheme based on Self-Pairing, (written jointly with Laba Sa), *accepted for the publication*
2. On some Weighted Zero-Sum Constants II, *International Journal of Number Theory*, **14(2)** 383-397 2018. (written jointly with P. Paul)
3. On some Weighted Zero-Sum Constants, *International Journal of Number Theory*, **13(2)** 301-308 2017. (written jointly with P. Paul)
4. On short Zero-sum sequences over abelian p-groups, *INTEGERS: Electronic Journal of Combinatorial Number Theory*, **17** A50 2017. (written jointly with P, Paul and R. Thangadurai)
5. On a weighted zero-sum constant, *Proceedings of the National Seminar on Algebra and Discrete Mathematics*, **1** 50 2016.
6. New upper bounds for the Davenport and for the Erdős-Ginzburg-Ziv constants, *Arch. Math.*, **98** 133–142 (2012), (written jointly with W. D. Gao, B. K. Moriya, P. Paul and R. Thangadurai)

7. Generalizations of Some Zero Sum Theorems, Proc. Indian Acad. Sci. (Math. Sci.), Volume **122**, Issue 1, 15-21 (2012), (written jointly with B. K. Moriya)
8. Number of weighted subsequence sums with weights in  $\{1,-1\}$ , Integers, **11**, paper A 36, (2011), (written jointly with S. D. Adhikari)
9. The Cauchy-Davenport Theorem: Various proofs and early generalizations, The Mathematics Student, **79** 1109-1116 2010. (written jointly with S. D. Adhikari, Geeta, B Moriya)
10. The Number of Weighted n-sums, *Int. J. Mod. Math.*, Vol **5 (2)** 215-222 (2010) (written jointly with B. K. Moriya and P. Paul)
11. Weighted sums in finite abelian groups, *Unif. Distrib. Theory* **3** (2008), 105-110 (written jointly with S. D. Adhikari, B. K. Moriya and P. Paul)

**Invited Lectures/Conference Talks :**

- Invited Lecture in Combinatorics & Number Theory Meet (on the occasion of 60th birth anniversary of Prof. S D Adhikari) - Feb 19-23 2017, HRI, Allahabad INDIA
- Invited Lecture in "Recent Trends in Mathematics", Feb 2018 conference organized by Vaidyanath College of Arts, Commerce and Science, Parali MH
- Invited Lectures (two) in Workshop on Number Theory & Cryptography, Dec 15-17 2015 Department of Mathematics, BITS Pillani, Goa Campus, Goa INDIA
- Invited Lectures Nationa Seminar on Algebra & Discrete Mathematics NSADM-2015 Oct 8-9 2015, St. Gregorios college, Kottarakara, Kerala INDIA
- Advanced Instructional School on Combinatorics Apr 28- May 17 2014, HRI Allahabad (6 Lectures/Tutorial)