Priyanka Kumari

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Research Interests

- Difference sets and applications
- Counting bent functions
- Design theory
- Algebraic Combinatorics

Education

2013-2021 **Ph.D**.
Birla Institute of Technology and Science Pilani, Pilani Campus, India
Thesis Title: Difference Sets and Their Applications
Thesis Supervisor: Dr. Pradipkumar H. Keskar

2010-2012 **Master of Science**.
Department of Mathematics, University of Rajasthan, Jaipur, India
Percentage: 67.5%

2007-2010 **Bachelor of Science**.
University of Rajasthan, Jaipur, India
Mathematics, Physics, Chemistry
Percentage: 77.11%

2007 **Higher Secondary Examination**.
Board of Secondary Education, Rajasthan
Mathematics, Physics, Chemistry, English, Hindi
Percentage: 68.46%

2005 **Secondary Examination**.
Board of Secondary Education, Rajasthan
Mathematics, Science, Social Science, English, Hindi, Sanskrit
Percentage: 77.50%

Scholarships & Awards

2016-2020 **CSIR-UGC NET with JRF**.
University Grant Commision, India

Skills

Software   Macaulay2, MS Office, LaTeX, TEX, Matlab

Publications

2020 P. H. Keskar and **Priyanka Kumari**, "Polynomial criterion for abelian difference sets", Indian Journal of Pure and Applied Mathematics, vol. 51, no. 1, pp. 233-249, 2020.

2021 P. H. Keskar and **Priyanka Kumari**, "Algebraic methods in difference sets and bent functions", Journal of Algebra Combinatorics Discrete Structures and Applications, vol. 8, no. 2, pp. 139-149, 2021.

Conferences/Workshops

Presented Work

2017   Group Ring Identity for Bent Functions, Symposium on Operational Research and Pure Mathematics, Department of Mathematics, BITS Pilani, Pilani Campus, Feb. 26, 2017.

2017   Algebraic Criterion for an Abelian Difference Set, International Conference on Algebra and Analysis (ICAA 2017), Center of Advanced Study, Department of Mathematics, Savitribai Phule Pune University, Dec. 19-22, 2017.

2020   Algebraic methods in difference sets and bent functions, 26th International Conference Of International Academy Of Physical Sciences On Advances In Algebra And Analysis (CONIAPS XXVI), Department Of Mathematics, Marwadi University, Dec. 18-20, 2020.

2021   Counting Abelian Difference Sets and Bent Functions Using Hilbert Function, International Virtual Conference on Recent Trends and Techniques in Mathematical and Computer Science, Government Degree College, Darhal, Jammu and Kashmir, India and Cape Comorin Trust, India and Lavender Literary Club, India and Cape Comorin Publisher, Tamil Nadu, India, July 28-29, 2021.

Conference/Workshops/Training Schools Attended

2014   National Conference on Recent Trends and Developments in Operations Research, Department of Mathematics, BITS Pilani, Pilani campus, India, Feb. 22-23, 2014.

2014   National Workshop on Latex and MATLAB for Beginners, Department of Mathematics, BITS Pilani, Pilani Campus, India, Dec. 24-28, 2014.

2015   Anual Foundation School II (AFS-II), Shiv Nadar University, Gautam Buddha Nagar, UP, India, May 4-30, 2015.

2015   Anual Foundation School III (AFS-III), HRI Allahabad, India, June 29- July 25, 2015.

Teaching Assistantship

MATH-I   Advanced Calculus

MATH-II   Linear Algebra and Complex Analysis

Prob & Stat   Probability and Statistics

References

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