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Research Interests

- Functional Analysis
- Geometry of Banach Spaces
- Approximation Theory

Brief Summary of Research

Jayanarayanan has published 7 research papers in refereed international journals. He is presently supervising one PhD student and has one on-going research project as Principal Investigator. Jayanarayanan works mainly on the problems related to a stronger form of a fundamental concept in approximation theory, namely proximality in Banach spaces especially in Lindenstrauss spaces. Currently he is working on the approximation theoretic properties of spaces of compact linear operators in the corresponding spaces of bounded linear operators and also on the continuity properties of metric projections in Lindenstrauss spaces.

Projects

- MATRICS, Department of Science and Technology, 2018-2021.

Recent Publications

- **C.R.Jayanarayanan**, “Characterization of strong ball proximality in L_1 -predual spaces”, *J. Convex Anal.* 26 (2) 537-542 (2019).
- S. Dutta, **C. R. Jayanarayanan** and Divya Khurana, “Ideal Operators and Relative Godun Sets”, *Extracta Math.* 34 (1) 1-17 (2019).
- **C. R. Jayanarayanan** and S. Lalithambigai, “Strong ball proximality and continuity of metric projection in L_1 -predual spaces”, *J. Approx. Theory.* 213 120-135 (2017).
- **C. R. Jayanarayanan** and T. S. S. R. K. Rao, “Optimization through dense sets”, *Bull. Belg. Math. Soc. Simon Stevin* 23 583-594 (2016).
- **C. R. Jayanarayanan** and Tanmoy Paul, “Strong proximality and intersection properties of balls in Banach spaces”, *J. Math. Anal. Appl.* 426 1217-1231 (2015).
- **C. R. Jayanarayanan**, “Proximality properties in $L_p(\mu, X)$ and polyhedral direct sums of Banach spaces”, *Numer. Funct. Anal. Optim.* 35 708-723 (2014).
- **C. R. Jayanarayanan**, “Intersection properties of balls in Banach spaces”, *J. Funct. Spaces Appl.* Article ID 902694 9 pp (2013).