

Department of Mathematics
Indian Institute of Technology Delhi

List of publications in 2020

Journals

- [1] Abhishake and S. Sivananthan. Manifold regularization based on Nyström type subsampling. *Appl. Comput. Harmon. Anal.*, 49(1):152–179, 2020.
- [2] Sanjib Kumar Acharya and Kamana Porwal. Primal hybrid finite element method for fourth order parabolic problems. *Appl. Numer. Math.*, 152:12–28, 2020.
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- [4] Ankush Acharyya, Minati De, Subhas C. Nandy, and Bodhayan Roy. Range assignment of base-stations maximizing coverage area without interference. *Theoret. Comput. Sci.*, 804:81–97, 2020.
- [5] R. Arora, J. Giacomoni, D. Goel, and K. Sreenadh. Positive solutions of 1-D half Laplacian equation with singular and exponential nonlinearity. *Asymptot. Anal.*, 118(1-2):1–34, 2020.
- [6] R. Arora, J. Giacomoni, T. Mukherjee, and K. Sreenadh. Adams-Moser-Trudinger inequality in the Cartesian product of Sobolev spaces and its applications. *Rev. R. Acad. Cienc. Exactas Fís. Nat. Ser. A Mat. RACSAM*, 114(3):Paper No. 111, 26, 2020.
- [7] R. Arora, J. Giacomoni, T. Mukherjee, and K. Sreenadh. Polyharmonic Kirchhoff problems involving exponential non-linearity of Choquard type with singular weights. *Nonlinear Anal.*, 196:111779, 24, 2020.
- [8] Rakesh Arora, Jacques Giacomoni, Divya Goel, and Konijeti Sreenadh. Symmetry of solutions to singular fractional elliptic equations and applications. *C. R. Math. Acad. Sci. Paris*, 358(2):237–243, 2020.
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- [11] Elvise Berchio, Debdip Ganguly, and Gabriele Grillo. Improved multipolar poincaré–hardy inequalities on cartan–hadamard manifolds. *Annali di Matematica Pura ed Applicata (1923 -)*, 199(1):65–80, 2020.
- [12] Elvise Berchio, Debdip Ganguly, Gabriele Grillo, and Yehuda Pinchover. An optimal improvement for the Hardy inequality on the hyperbolic space and related manifolds. *Proceedings of the Royal Society of Edinburgh: Section A Mathematics*, 150(4):16991736, 2020.
- [13] Elvise Berchio, Debdip Ganguly, and Prasun Roychowdhury. On some strong Poincaré inequalities on Riemannian models and their improvements. *J. Math. Anal. Appl.*, 490(1):124213, 25, 2020.
- [14] Mousomi Bhakta, Anup Biswas, Debdip Ganguly, and Luigi Montoro. Integral representation of solutions using green function for fractional hardy equations. *Journal of Differential Equations*, 269(7):5573–5594, 2020.
- [15] Binay K. Bhattacharya, Minati De, Subhas C. Nandy, and Sasanka Roy. Constant work-space algorithms for facility location problems. *Discrete Appl. Math.*, 283:456–472, 2020.
- [16] Deepak Bhoriya and Harish Kumar. Entropy-stable schemes for relativistic hydrodynamics equations. *Z. Angew. Math. Phys.*, 71(1):Paper No. 29, 29, 2020.
- [17] A. K. B. Chand, N. Vijender, P. Viswanathan, and A. V. Tetenov. Affine zipper fractal interpolation functions. *BIT*, 60(2):319–344, 2020.
- [18] Isha Chopra and Dharmaraja Selvamuthu. Scenario generation in stochastic programming using principal component analysis based on moment-matching approach. *Opsearch*, 57(1):190–201, 2020.
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- [21] S. Dharmaraja, Vidyottama Jain, Priyanka Anjoy, and Hukum Chandra. Empirical analysis for crop yield forecasting in india. *Agricultural Research*, 9(1):132–138, 2020.
- [22] S. Dharmaraja, Srijan Narang, and Vidyottama Jain. A mathematical model for supply chain management of blood banks in India. *Opsearch*, 57(2):541–552, 2020.
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- [24] Edgar Federico Elizeche and Amitabha Tripathi. A characterization of the sum and integral sum labellings of some classes of graphs. *Integers*, 20:Paper No. A33, 24, 2020.
- [25] Edgar Federico Elizeche and Amitabha Tripathi. A note on a generalization of fundamental gaps in numerical semigroups. *Integers*, 20:Paper No. A40, 8, 2020.

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- [27] Debdip Ganguly and Yehuda Pinchover. Some new aspects of perturbation theory of positive solutions of second-order linear elliptic equations. *Pure Appl. Funct. Anal.*, 5(2):295–319, 2020.
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- [29] Jacques Giacomoni, Divya Goel, and K. Sreenadh. Regularity results on a class of doubly nonlocal problems. *J. Differential Equations*, 268(9):5301–5328, 2020.
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- [31] Anubha Goel, Puneet Pasricha, and Aparna Mehra. Topological data analysis in investment decisions. *Expert Systems with Applications*, 147:113222, 2020.
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- [43] Anuj Kumar, Dhiraj Patel, and Sivananthan Sampath. Sampling and reconstruction in reproducing kernel subspaces of mixed Lebesgue spaces. *J. Pseudo-Differ. Oper. Appl.*, 11(2):843–868, 2020.
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Conference and workshop proceedings

- [93] Raksha Agarwal, Ishaan Verma, and Niladri Chatterjee. LangResearchLab_NC at FinCausal 2020, task 1: A knowledge induced neural net for causality detection. In *Proceedings of the 1st Joint Workshop on Financial Narrative Processing and MultiLing Financial Summarisation*, pages 33–39, Barcelona, Spain (Online), December 2020. COLING.
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- [98] Sanjay Kumar, Nipun Aggarwal, and B. S. Panda. Identifying influential spreaders on a weighted network using hookerank method. In Valeria V. Krzhizhanovskaya, Gábor Závodszy, Michael Harold Lees, Jack J. Dongarra, Peter M. A. Sloat, Sérgio Brissos, and João Teixeira, editors, *Computational Science - ICCS 2020 - 20th International Conference, Amsterdam, The Netherlands, June 3-5, 2020, Proceedings, Part I*, volume 12137 of *Lecture Notes in Computer Science*, pages 609–622. Springer, 2020.
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- [100] B. S. Panda and Juhi Chaudhary. Acyclic matching in some subclasses of graphs. In Leszek Gasieniec, Ralf Klasing, and Tomasz Radzik, editors, *Combinatorial Algorithms - 31st International Workshop, IWOCA 2020, Bordeaux, France, June 8-10, 2020, Proceedings*, volume 12126 of *Lecture Notes in Computer Science*, pages 409–421. Springer, 2020.
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Book Chapters

- [104] Niladri Chatterjee, Tanya Aggarwal, and Rishabh Maheshwari. *Sarcasm Detection Using Deep Learning-Based Techniques*, pages 237–258. Springer Singapore, Singapore, 2020.
- [105] Alok Nikhil Jha, Geetam Tiwari, and Niladri Chatterjee. *Road Accidents in EU, USA and India: A critical analysis of Data Collection Framework*, pages 419–443. 06 2020.