

Department of Mathematics

List of Publications 2012

Journal Publications

1. Nussbaum, Roger, Priyadarshi, Amit, Verduyn Lunel, Sjoerd, Positive operators and Hausdorff dimension of invariant sets. *Trans. Amer. Math. Soc.* 364 (2012), no. 2, 1029–1066.
2. Tripathi, Amitabha A curious property of the decimal expansion of reciprocals of primes. *Pi Mu Epsilon J.* 13 (2012), no. 7, 427–430.
3. Sharma, Anuradha; Sharma, Amit K. On MacWilliams type identities for  $r$ -fold joint  $m$ -spotty weight enumerators. *Discrete Math.* 312 (2012), no. 22, 3316–3327.
4. Sharma, Anuradha; Sharma, Amit K. MacWilliams type identities for some new  $m$ -spotty weight enumerators. *IEEE Trans. Inform. Theory* 58 (2012), no. 6, 3912–3924.
5. Sharma, Anuradha; Bakshi, Gurmeet K. The weight distribution of some irreducible cyclic codes. *Finite Fields Appl.* 18 (2012), no. 1, 144–159.
6. Aggarwal, A.; Dubey, D.; Chandra, S.; Mehra, Aparna. Application of Atanassov's I-fuzzy set theory to matrix games with fuzzy goals and fuzzy payoffs. *Fuzzy Inf. Eng.* 4 (2012), no. 4, 401–414.
7. Aggarwal, A.; Mehra, Aparna; Chandra, S. Application of linear programming with I-fuzzy sets to matrix games with I-fuzzy goals. *Fuzzy Optim. Decis. Mak.* 11 (2012), no. 4, 465–480.
8. Gupta, Rachana; Mehra, Aparna Gap functions and error bounds for quasi variational inequalities. *J. Global Optim.* 53 (2012), no. 4, 737–748.
9. Gupta, Deepali, Mehra, Aparna A new notion of quasi efficiency in vector optimization. *Pac. J. Optim.* 8 (2012), no. 2, 217–230
10. Dubey, Dipti, Chandra, Suresh; Mehra, Aparna Fuzzy linear programming under interval uncertainty based on IFS representation. *Fuzzy Sets and Systems* 188 (2012), 68–87.
11. Chandra Sekhara Rao, S.; Kumar, Sunil Second order global uniformly convergent numerical method for a coupled system of singularly perturbed initial value problems. *Appl. Math. Comput.* 219 (2012), no. 8, 3740–3753.
12. Resham Vinayak, S. Dharmaraja, “Semi-Markov Modeling Approach for Deteriorating Systems with Preventive Maintenance”, *International Journal of Performability Engineering*, Vol. 8, pp. 515 – 526, 2012.
13. Kumar, Harish; Mishra, Siddhartha Entropy stable numerical schemes for two-fluid plasma equations. *J. Sci. Comput.* 52 (2012), no. 2, 401–425.
14. Garg, Pratibha; Kundu, S. The compact- $G_\delta$ -open topology on  $C(X)$ . *Topology Appl.* 159 (2012), no. 8, 2082–2089.
15. Kundu, S.; Pandey, Vipra The metrizable and completeness of the  $\sigma$ -compact-open topology on  $C^*(X)$ . *Topology Appl.* 159 (2012), no. 3, 593–602.
16. Panigrahi, B.; De, S.; Panda, B. S.; Luk, J.-D. Lan Sun Network lifetime maximising distributed forwarding strategies in ad hoc wireless sensor networks. *IET Commun.* 6 (2012), no. 14, 2138–2148.
17. Panda, B. S.; Pradhan, D. Acyclic matchings in subclasses of bipartite graphs. *Discrete Math. Algorithms Appl.* 4 (2012), no. 4, 1250050, 15 pp.
18. Chang, Gerard J.; Panda, B. S.; Pradhan, D. Complexity of distance paired-domination problem in graphs. *Theoret. Comput. Sci.* 459 (2012), 89–99.
19. Panda, B. S.; Goel, Preeti  $L(2,1)$ -labeling of dually chordal graphs and strongly orderable graphs. *Inform. Process. Lett.* 112 (2012), no. 13, 552–556.

20. Barman, Rupam; Saikia, Anupam Iwasawa  $\lambda$ -invariants of p-adic measures on  $(\mathbb{Z}_p)^n$  and their  $\Gamma$ -transforms. *J. Number Theory* 132 (2012), no. 10, 2258–2266.
21. Barman, Rupam; Kalita, Gautam Certain values of Gaussian hypergeometric series and a family of algebraic curves. *Int. J. Number Theory* 8 (2012), no. 4, 945–961.
22. Barman, Rupam; Kalita, Gautam Hypergeometric functions and a family of algebraic curves. *Ramanujan J.* 28 (2012), no. 2, 175–185.
23. Sreenadh, K.; Khaldi, Brahim Multiplicity of positive solutions for a gradient system with an exponential nonlinearity. *Electron. J. Differential Equations* 2012, No. 236, 16 pp.
24. Kaur, Bhatia Sumit; Sreenadh, K.; Tiwari, Sweta On  $W_{1,p}$  versus  $C^1(\Omega)$  local minimizers for functionals with critical growth. *Appl. Anal.* 91 (2012), no. 9, 1749–1760.
25. Sharma, R. K.; Yadav, P.; Joshi, K. Units in  $\mathbb{Z}_2(C_2 \times D_\infty)$ . *Int. J. Group Theory* 1 (2012), no. 4, 33–41.
26. Sharma, R. K.; Shukla, Wagish; Ramasamy, S. A note on identification of irreducible polynomials of over  $F_2$ . *Int. Electron. J. Pure Appl. Math.* 4 (2012), no. 2, 59–70.
27. Sharma, R. K.; Yadav, Pooja; Kanwar, Pramod Lie regular generators of general linear groups. *Comm. Algebra* 40 (2012), no. 4, 1304–1315.
28. Sachin Kumar, R. K. Sharma, “Improving Contrast in Random Grids Based Visual Secret Sharing”, *International Journal of Security and Its Applications*, Vol. 6(1), 9-28, 2012.
29. Naumova, V.; Pereverzyev, S. V.; Sivananthan, S. Adaptive parameter choice for one-sided finite difference schemes and its application in diabetes technology. *J. Complexity* 28 (2012), no. 5-6, 524–538.
30. V. Naumova, S. V. Pereverzev, S. Sivananthan, “A meta-learning approach to the regularized learning-case study: Blood glucose prediction”, *Neural Networks*, Vol. 33, pp. 181-193, 2012.
31. Chaudhary, Sudhakar; Srinivas Kumar, V. V. K. A new class of stabilized web-spline-based mesh-free finite elements for the approximation of Maxwell equations. *Numer. Funct. Anal. Optim.* 33 (2012), no. 3, 264–283.
32. Jayadeva, Sachindra Joshi, Ganesh Ramakrishnan, Suresh Chandra, “Using Sequential Unconstrained Minimization Techniques to simplify SVM solvers”, *Neurocomputing*, Vol. 77(1), pp. 253-260, 2012.

#### Conference Publications

1. B. Chandra, K.V Naresh Babu, A single neuron Model for pattern Classification, In Proc. of Neural information processing, LNCS, Vol. 7666, pp. 619-625, 2012.
2. S. Dharmaraja, Resham Vinayak, Xiaomin Ma, Kishor S. Trivedi, “Reliability and Survivability of Vehicular Ad hoc Networks”, In Proc. of *SPECTS'12*, pp. 1 - 7, 2012.
3. Renu Balyan, Sudip Kumar Naskar, Antonio Toral and Niladri Chatterjee. A Diagnostic Evaluation Approach Targeting MT Systems for Indian Languages. Proc. COLING Workshop on Machine Translation and Parsing in Indian Languages (MTPIL-2012), pp. 61–72, Mumbai, 2012.
4. Niladri Chatterjee, Amol Mittal and Shubham Goyal. Single Document Extractive Text Summarization using Genetic Algorithms. Proc. Third International Conference on Emerging Applications of Information Technology (EAIT), Elsevier, pp 19 – 23, 2012.
5. B. S. Panda, Pushparaj Shetty D and Bijay Kishor Bhatta, Strong Minimum Energy Minimum Interference Topology in Wireless Sensor Networks, ( ICDCIT 2012) Lecture Notes in Computer Science, Vol 7154 (2012) 177-187, Springer
6. B. S. Panda and Pushparaj Shetty D, Strong Minimum Interference Topology for Wireless Sensor Networks,( ADCONS 2011) Lecture Notes in Computer Science, Vol 7135 (2012) 366-374, Springer