

RESEARCH PUBLICATIONS FROM IISER, PUNE *

2006 :

1. Harikrishnan, K.P., Misra, R., **Ambika, G.** and Kembhavi, A.K. 2006. A Nonsubjective approach to GP algorithm for analyzing noisy time series. Physica D 215: 137- 145.
2. **Ambika, G.**, Menon, K. and Harikrishnan, K.P. 2006. Noise induced resonance phenomena in coupled map lattices. European Physical Journal B 49: 225- 230.
3. Misra, R., Harikrishnan, K.P., **Ambika, G.** and Kembhavi, A.K. 2006. The Nonlinear behaviour of the black hole system GRS 1915+105. Astrophysical Journal 643:1114-1129.
4. Menon, K., Harikrishnan, K.P. and **Ambika, G.** 2006. "Noise assisted detection of a traveling wave signal through a coupled map lattice". In Nonlinear Systems & Dynamics. ed. Lakshmanan, M. and Sahadevan, R. Allied Publication.
5. Ambika, K. and **Ambika, G.** 2006. "Synchronisation schemes for Gumoski-Mira maps". In Nonlinear Systems and Dynamics. ed. Lakshmanan, M. and Sahadevan, R. Allied Publication.
6. **Ambika, G.**, Menon, K. and Harikrishnan, K.P. 2006. Lattice stochastic resonance in coupled map lattice. Europhysics Letters 73(4): 506-512.
7. **Ambika, G.** and Ambika, K. 2006. Synchronisation schemes for two dimensional discrete systems. Physica Scripta 74: 510-518.
8. Reddy, J.S., Mandal, S. and **Anand, V.G.** 2006. Cyclic oligofurans: Synthesis of 30π and 40π expanded porphyrinoids. Organic Letters. 8: 5541.

2007:

1. **Ambika, G.** and Ambika, K. 2007. Simultaneous and sequential synchronisation in arrays. European Physical Journal 37: 347-352.
2. Harikrishnan, K.P., **Ambika, G.** and Misra, R. 2007. An algorithmic computation of correlation dimension from time series. Modern Physics Letters 21: 129-138.
3. Roy, A., **Bhat, R.G.**, Row, G. and Chandrasekaran, S. 2007. C-H...F interaction overshadows favorable C-H...O interaction in propargyl pentafluorophenyl carbonate (PocOPfp). Crystal Growth & Design 7: 844-846.
4. Pinto, B.M., Sharwan, K.N., **Bhat, R.G.**, Hui, Liu, Ravindranath, N., Wang, Chen. and Sankar, M. 2007. Preparation of salacinol analogs alditols as glycosidase inhibitors. US Patent. 35 pp. US 2007244184, A1 20071018.
5. **Bhat, R.G.**, Kumar, N.S. and Pinto, B.M. 2007. Synthesis of phosphate derivatives related to the glycosidase inhibitor salacinol. Carbohydrate Research 342: 1934-1942.

*some of the publications are based on work done by faculty prior to joining IISER

6. **Das, Alope.**, Poliakoff, E.D., Lucchese, R.R. and Bozek, J.D. 2007. Vibrationally resolved photoionization dynamics of CF₄ in D₂A₁ state. Journal of Chemical Physics 127: 044312.
7. Aritakula, A., Ramaswamy, A. and **Shashidhara, L.S.** 2007. Actin cytoskeleton as a putative target of the Neem Limonoid Azadirachtin A. Insect Biochemistry and Molecular Biology 37: 627-634.
8. Makhijani, K., Chilukuri, K., Tamarisaand, S. and **Shashidhara, L.S.** 2007. Modulation of decapentaplegic gradient during haltere specification in *Drosophila*. Developmental Biology 302: 243-255.

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1. **Ambika, G.**, Harikrishnan, K.P. and Misra, R. 2008. "Mutifractal analysis of physiological data- a non-subjective approach". In Complex Dynamics of Physiological Systems: From Heart to Brain. ed. Dana, S.K. et. al. 21. Springer.
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4. Harikrishnan, K.P. and **Ambika, G.** 2008. Resonance phenomena in discrete systems with bichromatic input signal. The European Physical Journal B 61: 343-353.
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7. **Ananth, S.** 2008. The quintic interaction vertex in light-cone gravity, Physics Letters B 664(3): 219-223.
8. Choubdar, N. **Bhat, R.G.**, Stubbs, Keith, A., Scott, Y. and Pinto, B.M. 2008. Synthesis of 2-amido, 2-amino, and 2-azido derivatives of the nitrogen analogue of the naturally occurring glycosidase inhibitor salacinol and their inhibitory activities against O-GlcNAcase and NagZ enzymes. Carbohydrate Research 343: 1766-1777.
9. **Dey, S.**, Prasad, N.G., Shakarad, M. and Joshi, A. 2008. Laboratory evolution of population stability in *Drosophila*: Constancy and persistence do not necessarily coevolve. Journal Animal Ecology. 77(4): 670-677.
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14. Anilkumar, P. and **Jayakannan, M.** 2008. Divergent nanostructures from identical ingredients: Unique amphiphilic micelle template for polyaniline nanofibers, tubes, rods and spheres. Macromolecules 41: 7706- 7715.
15. Anilkumar, P. and **Jayakannan, M.** 2008. Hydroxyl functionalized polyaniline nano-spheres: Tracing molecular interactions at nano-surface via vitamin-c sensing. Langmuir 24: 9754-9762.
16. Amrutha, S.R. and **Jayakannan, M.** 2008. Probing the π -stack induced molecular aggregation in π -Conjugated polymers, oligomers and their blends of poly(phenylenevinylene)s. Journal of Physical Chemistry B 112: 1119-1129.
17. Deepa, P. and **Jayakannan, M.** 2008. Polyurethane-Oligophenylenevinylene random copolymers: π -Conjugated Pores, vesicles and nano-spheres via solvent induced self-organization. Journal of Polymer Science Part A: Polymer Chemistry 46: 5897-5915.
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27. Dandekar, M.P., Singru, P.S., Kokare, D.M. and **Subhedar, N.K.** 2008. Cocaine- and amphetamine-regulated transcript (CART) containing systems may play a major role in the manifestation of depression: Social isolation and olfactory bulbectomy models reveal unifying principles. Neuropsychopharmacology, doi:10.1038/npp.2008.201.
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30. Kokare, D.M., Singru, P.S., Dandekar, M.P., Chopde, C.T. and **Subhedar, N.K.** 2008. Involvement of alpha-melanocyte stimulating hormone (α -MSH) in differential ethanol exposure and withdrawal related depression in rat: neuroanatomical-behavioral correlates. Brain Research 1216: 53-67.
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3. Harikrishnan, K.P., Misra, R. and **Ambika, G.** 2009. Combined use of correlation dimension and entropy as discriminating measures for time series analysis. Communications in Nonlinear Science & Numerical Simulation 14: 3608-3614.
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2010:

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