

PUBLICATIONS, PRESENTATIONS AND OTHER SCIENTIFIC ACTIVITIES

Publications in Journals

Goswami P and Harinath N : Mechanism of observed interannual variability over the equatorial Indian Ocean, *J.Atmos. Sci.*, 54, 1689-1700, 1997.

Goswami P and Kumar P : Experimental annual forecast of all-India mean summer monsoon rainfall for 1997 using a neural network model, *Current Science*, 72, 781, 1997.

Joseph B : Chaotic mixing by internal inertia-gravity waves, *Physics of Fluids*, 9(4), 945-962, 1997.

Joseph B : Are chaotic particle trajectories fractals?, *Current Science*, 73(10), 864-868, 1997.

Kumar A : Shock induced secondary vortex on a delta wing - an Euler simulation, *Current Science*, 72, 874-876, 1997.

Mandal P, Manglik A and Singh R N : Intraplate stress distribution induced by topography and crustal density heterogenetics beneath the Killari, India Region, *J. Geophys. Res.*, 102, 11719-11729, 1997.

Parthasarathy S : Analytic structure and chaotic dynamics of the damped driven Toda oscillator, *Physical Review E*, 55, 3942-3947, 1997.

Paul J and Singh R N : Elastic deformation model of Vema-Ridge - Transform intersection in Indian Ocean, *J. Geophys.* 18, 207-210, 1997.

Sharada M K and Yajnik K S : Seasonal variation of

chlorophyll and primary productivity in central Arabian Sea: A macrocalibrated upper ocean ecosystem model, *Proc. Indian Acad. Sci. (Earth Planet. Sci.)*, 106, 83-42, 1997.

Sridevi Jade and Garg K G: Finite element analysis of a reinforced earth wall, *Indian Geotechnical Journal* | 27, 59-73, 1997.

Sridevi Jade and Sitharam T G: Non-Linear analysis of jointed rock using equivalent continuum approach, *Journal of Rock Mechanics and Tunelling Technology*, 3, 109-126, 1997.

Swathi P S and Yajnik K S : Sea-surface heights obtained from modular ocean model simulation and comparison with TOPEX/Poseidon data for Indian ocean, *Proc. Indian Acad. Sci. (Earth Planet. Sci.)*, 10, 44-53, 1997.

Presentations at Conferences/ Symposia/ Workshops

Bhattacharya K and Goswami P: Relative roles of low and medium clouds in intensification of cyclones, TROPMET'97, Bangalore, Feb. 10-14, 1997.

Jagdish R, Prakash S , Sastry V V S R S, Sridevi Jade: A finite element interaction analysis of brick masonry infilled reinforced concrete frames under combined lateral and vertical loads, Nisa Users conference, Nov 97, Bangalore, India.

Kumar A : Flow consistent grid in CFD, Keynote lecture, 7th Intl. Symposium on CFD, pp. 3-11, Beijing, 15-19, 1997.

Pradeep Kumar and Goswami P : A neural dynamical model for mean summer monsoon rainfall, TROPMET '97, Bangalore, Feb. 10-14, 1997.

Rameshan K and Goswami P : Oscillations of a convectively coupled ocean atmosphere system, TROPMET '97, Bangalore, Feb. 10-14, 1997.

Reddy G K, Swathi P S et al : Retrieval of SST and Humidity from GRS-80 SR data, lecture notes, 2, SAC, Ahmedabad, 1997.

Sharada M K and Yajnik K S : Comparison of simulations of a mixed-layer FDM type model with CZCS data in north Indian Ocean, Workshop on Inverse Modelling in Global Biogeochemical Cycles, Heraklion, Greece, Mar. 16-20, 1998.

Meetings and Workshops held at C-MMACS

TROPMET-97 Monsoon, Climate and Agriculture, Feb. 10-14, 1997.

Tutorial Workshop on Virtual Reality, Sept. 17-19, 1997.

Intensive Course on Mathematical Modelling, Sept. 23-26, 1997.

Intensive Course on Principles and Applications of Adjoint Methods, Nov. 17-19, 1997.

Invited Lectures

Integrated Geophysical Experiments in Saurashtra, Dr. P R Reddy, NGRI, Hyderabad, May 13, 1997.

CFD Modelling of Respiratory Tract: Applications to Biomedicine and Respiratory Health. Dr. Ravi Subramaniam, Chemical Industry Instt. of Tech., USA, Jun. 30, 1997.

Thermal, Mechanical and Mineralogical Interactions in subduction process: Clues to Volcanism and other Phenomena, Prof. J. Ganguly, Dept. of Geosciences, The University of Arizona, Tuscon, USA, Aug. 6, 1997.

Localisation and Characertisation of an Elastic Target in Shallow Water, Prof. P S Naidu, ECE Dept., IISc., Aug. 21, 1997.

Research Activities of the Daimler Benz Research Centre India, Dr. Seshu Bhagavathula, Daimler Benz Res. Centre India Pvt. Ltd., Aug. 26, 1997.

Evolution of Organization and Structure, Prof. K P Sinha, IISc., & JN Centre for Advanced Scientific Res. , Sept. 16, 1997.

Hamilton - Jacobi Equation and its New Solutions, Prof. Phoolan Prasad, IISc., Bangalore Sept. 30, 1997.

Dynamics and Stability in Model Populations and Metapopulations, Dr. Amitabh Joshi, Evolution and Behaviour Laboratory, Jawaharlal Nehru Centre for Advanced Scientific Res. Bangalore, Oct. 14, 1997.

The Circulation of the Atmospheres of Mars and the other Planets, Dr. Olivier Talagrand, Laboratoire de Meteorologie Dynamique, CNRS Paris, France, and Dept. of Mechanics, Ecole Polytechnique, Nov. 25, 1997.

Orographically Forced Mesoscale Circulation in Coastal Regions of India, Dr. R.V. Madala, Naval Res. Laboratory, Washington D.C., Dec. 8, 1997.

Characterisation and Control of Spatio-Temporal Dynamics in Chemical Reaction-Diffusion Systems, Dr. Nita Parekh, CCMB, Hyderabad, Dec. 9, 1997.

Fluid Dynamics of the Earth's Deep Interior, Prof. D.Gubbins, FRS, University of Leeds, UK, Dec. 18, 19, 22, 24, 1997.

Simulation of Sedimentation: A Sequence Stratigraphic approach, Shri. Animikh Sen, Sequence Stratigraphy & Computer Simulation Laboratory, University of South Carolina, USA, Jan. 8, 1998.

Nonlinear Nonunique Inversion in Geophysics using Neural Networks, Dr. Kabir Roy Choudhury, Geodynamics Res. Instt, Netherlands, Jan. 12, 1998.

On Geographical Seasonal and Interannual Differences in Phytoplankton Chlorophyll in the Open Arabian Sea, Prof. K. Banse, University of Washington, USA, Feb. 2, 1998.

Mathematical Modelling at Atmospheric Dynamics: Role of Physical Processes, Prof. U.C. Mohanty, CAS, IIT, Delhi, Feb. 19, 1998.

Lyapunov Exponent without Rescaling and Reorthogonalization, Prof. G. Ranga Rajan, Dept. of Mathematics, IISc., Bangalore, Mar. 19, 1998.

Acoustic Remote Sensing of the Oceans, Prof. G.V. Anand, Dept. of ECE, IISc., Bangalore, Mar. 24, 1998.

Colloquia

Thermal Processes in the Earth's Crust, Dr. R N Singh, C-MMACS, Sept. 3, 1997.

Short Course on Modular Ocean Model Theory, Code, Post Processing and Analysis, Dr. P.S. Swathi, C-MMACS, Oct. 23-26, 1997.

Flow-Consistent Grid in CFD, Dr. Anand Kumar,

C-MMACS, Oct. 28, 1997.

Visitors to C-MMACS

Prof. Karmeshu, School of Computer and Systems Sciences, JNU, New Delhi, Jan. 1, 1997.

Dr. A. Watermann, Germany, Jan. 17, 1997.

Dr. A.P. Mitra, CSIR-NPL, New Delhi, Jan. 28, 1997.

Prof. R.N. Iyengar, CBRI, Roorkee, Jan. 29, 1997.

Dr. V. Narayanaswamy, Chairman Steering Committee Parliamentary S & T Committee, Feb. 11, 1997.

Prof. V. L. S. Bhimasankaram, AEG, Hyderabad, Feb. 11-12, 1997.

Shri. S. Balakrishna, CWPRS, Pune, Feb. 19, 1997.

Dr. Hans Vangheluwe, Univ. of Ghent, Belgium, Feb. 20, 1997.

30 Students & two staff members from Univ. of Utrecht, Netherlands, Mar. 19, 1997.

Shri. S. Tara Nand Singh, CMRI, Dhanbad, Apr. 9-12, 1997.

Prof. J Ganguly, Dept. of Geosciences, The Univ. of Arizona, Tuscon, USA, Aug. 6, 1997.

Dr. P.R. Pontiac, IMT, Chandigarh, Nov. 17, 1997.

Dr. Olivier Talagrand, Laboratoire de Meteorologie Dynamique, Nov. 25, 1997.

Dr. R.V. Madala, Naval Res. Laboratory, Washington D.C., Dec. 8, 1997.

Prof. David Gubbins, Univ. of Leeds, U.K., Dec. 16-25, 1997.