

I. I. T. M. RESEARCH REPORTS

- Energetic consistency of truncated models, Asnani G.C., August 1971, RR-001.
- Note on the turbulent fluxes of heat and moisture in the boundary layer over the Arabian Sea, Sinha S., August 1971, RR-002.
- Simulation of the spectral characteristics of the lower atmosphere by a simple electrical model and using it for prediction, Sinha S., September 1971, RR-003.
- Study of potential evapo-transpiration over Andhra Pradesh, Rakhecha P.R., September 1971, RR-004.
- Climatic cycles in India-1: Rainfall, Jagannathan P. and Parthasarathy B., November 1971, RR-005.
- Tibetan anticyclone and tropical easterly jet, Raghavan K., September 1972, RR-006.
- Theoretical study of mountain waves in Assam, De U.S., February 1973, RR-007.
- Local fallout of radioactive debris from nuclear explosion in a monsoon atmosphere, Saha K.R. and Sinha S., December 1972, RR-008.
- Mechanism for growth of tropical disturbances, Asnani G.C. and Keshavamurty R.N., April 1973, RR-009.
- Note on "Applicability of quasi-geostrophic barotropic model in the tropics", Asnani G.C., February 1973, RR-010.
- On the behaviour of the 24-hour pressure tendency oscillations on the surface of the earth, Part-I: Frequency analysis, Part-II: Spectrum analysis for tropical stations, Misra B.M., December 1973, RR-011.
- On the behaviour of the 24 hour pressure tendency oscillations on the surface of the earth, Part-III : Spectrum analysis for the extra-tropical stations, Misra B.M., July 1976, RR-011A.
- Dynamical parameters derived from analytical functions representing Indian monsoon flow, Awade S.T. and Asnani G.C., November 1973, RR-012.
- Meridional circulation in summer monsoon of Southeast Asia, Asnani G.C., November 1973, RR-014.
- Energy conversions during weak monsoon, Keshavamurty R.N. and Awade S.T., August 1974, RR-015.
- Vertical motion in the Indian summer monsoon, Awade S.T. and Keshavamurty R.N., August 1974, RR-016.
- Semi-annual pressure oscillation from sea level to 100mb in the northern hemisphere, Asnani G.C. and Verma R.K., August 1974, RR-017.
- Suitable tables for application of gamma probability model to rainfall, Mooley D.A., November 1974, RR-018.
- Annual and semi-annual thickness oscillation in the northern hemisphere, Asnani G.C. and Verma R.K., January 1975, RR-020.
- Spherical harmonic analysis of the normal constant pressure charts in the northern hemisphere, Awade S.T., Asnani G.C. and Keshavamurty R.N., May 1978, RR-021.

- Dynamical parameters derived from analytical function representing normal July zonal flow along 87.5 °E, Awade S.T. and Asnani G.C., May 1978, RR-022.
- Study of trends and periodicities in the seasonal and annual rainfall of India, Parthasarathy B. and Dhar O.N., July 1975, RR-023.
- Southern hemisphere influence on Indian rainfall, Raghavan K., Paul D.K. and Upasani P.U., February 1976, RR-024.
- Climatic fluctuations over Indian region - Rainfall : A review, Parthasarathy B. and Dhar O.N., May 1978, RR-025.
- Annual variation of meridional flux of sensible heat, Verma R.K. and Asnani G.C., December 1978, RR-026.
- Poisson distribution and years of bad monsoon over India, Mooley D.A and Parthasarathy B., April 1980, RR-027.
- On accelerating the FFT of Cooley and Tukey, Mishra S.K., February 1981, RR-028.
- Wind tunnel for simulation studies of the atmospheric boundary layer, Sivaramakrishnan S., February 1981, RR-029.
- Hundred years of Karnataka rainfall, Parthasarathy B. and Mooley D.A., March 1981, RR-030.
- Study of the anomalous thermal and wind patterns during early summer season of 1979 over the Afro-Asian region in relation to the large-scale performance of the monsoon over India, Verma R.K. and Sikka D.R., March 1981, RR-031.
- Some aspects of oceanic ITCZ and its disturbances during the onset and established phase of summer monsoon studied with Monex-79 data, Sikka D.R., Paul D.K. and Singh S.V., March 1981, RR-032.
- Modification of Palmer drought index, Bhalme H.N. and Mooley D.A., March 1981, RR-033.
- Meteorological rocket payload for Menaka-II / Rohini 200 and its developmental details, Vernekar K.G. and Brij Mohan, April 1981, RR-034.
- Harmonic analysis of normal pentad rainfall of Indian stations, Anathakrishnan R. and Pathan J.M., October 1981, RR-035.
- Pentad rainfall charts and space-time variations of rainfall over India and the adjoining areas, Anathakrishnan R. and Pathan J.M., November 1981, RR-036.
- Dynamic effects of orography on the large scale motion of the atmosphere Part I : Zonal flow and elliptic barrier with maximum height of one km., Bavadekar S.N. and Khaladkar R.M., January 1983, RR-037.
- Limited area five level primitive equation model, Singh S.S., February 1983, RR-038.
- Developmental details of vortex and other aircraft thermometers, Vernekar K.G., Brij Mohan and Srivastava S., November 1983, RR-039.
- Note on the preliminary results of integration of a five level P.E. model with westerly wind and low orography, Bavadekar S.N., Khaladkar R.M., Bandyopadhyay A. and Seetaramayya P., November 1983, RR-040.
- Long-term variability of summer monsoon and climatic change, Verma R.K., Subramaniam K. and Dugam S.S., December 1984, RR-041.
- Project report on multidimensional initialization for NWP models, Sinha S., February 1989, RR-042.

- Numerical experiments with inclusion of orography in five level P.E. Model in pressure-coordinates for interhemispheric region, Bavadekar S.N. and Khaladkar R.M., March 1989, RR-043.
- Application of a quasi-lagrangian regional model for monsoon prediction, Singh S.S. and Bandyopadhyay A., July 1990, RR-044.
- High resolution UV-visible spectrometer for atmospheric studies, Bose S., Trimbake H.N., Londhe A.L. and Jadhav D.B., January 1991, RR-045.
- Fortran-77 algorithm for cubic spline interpolation for regular and irregular grids, Tandon M.K., November 1991, RR-046.
- Fortran algorithm for 2-dimensional harmonic analysis, Tandon M.K., November 1991, RR-047.
- 500 hPa ridge and Indian summer monsoon rainfall : A detailed diagnostic study, Krishna Kumar K., Rupa Kumar K. and Pant G.B., November 1991, RR-048.
- Documentation of the regional six level primitive equation model, Singh S.S. and Vaidya S.S., February 1992, RR-049.
- Utilisation of magnetic tapes on ND-560 computer system, Kripalani R.H. and Athale S.U., July 1992, RR-050.
- Spatial patterns of Indian summer monsoon rainfall for the period 1871-1990, Kripalani R.H., Kulkarni A.A., Panchawagh N.V. and Singh S.V., August 1992, RR-051.
- FORTRAN algorithm for divergent and rotational wind fields, Tandon M.K., November 1992, RR-052.
- Construction and analysis of all-India summer monsoon rainfall series for the longest instrumental period: 1813-1991, Sontakke N.A., Pant G.B. and Singh N., October 1992, RR-053.
- Some aspects of solar radiation, Tandon M.K., February 1993, RR-054.
- Design of a stepper motor driver circuit for use in the moving platform, Dharmaraj T. and Vernekar K.G., July 1993, RR-055.
- Experimental set-up to estimate the heat budget near the land surface interface, Vernekar K.G., Saxena S., Pillai J.S., Murthy B.S., Dharmaraj T. and Brij Mohan, July 1993, RR-056.
- Identification of self-organized criticality in atmospheric total ozone variability, Selvam A.M. and Radhamani M., July 1993, RR-057.
- Deterministic chaos and numerical weather prediction, Selvam A.M., February 1994, RR-058.
- Evaluation of a limited area model forecasts, Singh S.S., Vaidya S.S. Bandyopadhyay A., Kulkarni A.A., Bawiskar S.M., Sanjay J., Trivedi D.K. and Iyer U., October 1994, RR-059.
- Signatures of a universal spectrum for atmospheric interannual variability in COADS temperature time series, Selvam A.M., Joshi R.R. and Vijayakumar R., October 1994, RR-060.
- Identification of self-organized criticality in the interannual variability of global surface temperature, Selvam A.M. and Radhamani M., October 1994, RR-061.
- Identification of a universal spectrum for nonlinear variability of solar-geophysical parameters, Selvam A.M., Kulkarni M.K., Pethkar J.S. and Vijayakumar R., October 1994, RR-062.
- Universal spectrum for fluxes of energetic charged particles from the earth's magnetosphere, Selvam A.M. and Radhamani M., June 1995, RR-063.

- Estimation of nonlinear kinetic energy exchanges into individual triad interactions in the frequency domain by use of the cross-spectral technique, Chakraborty D.R., August 1995, RR-064.
- Monthly and seasonal rainfall series for all-India homogeneous regions and meteorological subdivisions: 1871-1994, Parthasarathy B., Munot A.A. and Kothawale D.R., August 1995, RR-065.
- Thermodynamics of the mixing processes in the atmospheric boundary layer over Pune during summer monsoon season, Morwal S.B. and Parasnis S.S., March 1996, RR-066.
- Instrumental period rainfall series of the Indian region: A documentation, Singh N. and Sontakke N.A., March 1996, RR-067.
- Some numerical experiments on roundoff-error growth in finite precision numerical computation, Fadnavis S., May 1996, RR-068.
- Fractal nature of MONTBLEX time series data, Selvam A.M. and Sapre V.V., May 1996, RR-069.
- Homogeneous regional summer monsoon rainfall over India: Interannual variability and teleconnections, Parthasarathy B., Rupa Kumar K. and Munot A.A., May 1996, RR-070.
- Universal spectrum for sunspot number variability, Selvam A.M. and Radhamani M., November 1996, RR-071.
- Development of simple reduced gravity ocean model for the study of upper north Indian Ocean, Behera S.K. and Salvekar P.S., November 1996, RR-072.
- Study of circadian rhythm and meteorological factors influencing acute myocardial infarction, Selvam A.M., Sen D. and Mody S.M.S., April 1997, RR-073.
- Signatures of universal spectrum for atmospheric gravity waves in southern oscillation index time series, Selvam A.M., Kulkarni M.K., Pethkar J.S. and Vijayakumar R., December 1997, RR-074.
- Some example of X-Y plots on Silicon Graphics, Selvam A.M., Fadnavis S. and Gharge S.P., May 1998, RR-075.
- Simulation of monsoon transient disturbances in a GCM, Ashok K., Soman M.K. and Satyan V., August 1998, RR-076.
- Universal spectrum for intraseasonal variability in TOGA temperature time series, Selvam A.M., Radhamani M., Fadnavis S. and Tinmaker M.I.R., August 1998, RR-077.
- One dimensional model of atmospheric boundary layer, Parasnis S.S., Kulkarni M.K., Arulraj S. and Vernekar K.G., February 1999, RR-078.
- Diagnostic model of the surface boundary layer - A new approach, Sinha S., February 1999, RR-079.
- Computation of thermal properties of surface soil from energy balance equation using force - restore method, Sinha S., February 1999, RR-080.
- Fractal nature of TOGA temperature time series, Selvam A.M. and Sapre V.V., February 1999, RR-081.
- Evolution of convective boundary layer over the Deccan Plateau during summer monsoon, Parasnis S.S., February 1999, RR-082.
- Self-organized criticality in daily incidence of acute myocardial infarction, Selvam A.M., Sen D., and Mody S.M.S., February 1999, RR-083.

- Monsoon simulation of 1991 and 1994 by GCM : Sensitivity to SST distribution, Ashrit R.G., Mandke S.K. and Soman M.K., March 1999, RR-084.
- Numerical investigation on wind induced interannual variability of the north Indian Ocean SST, Behera S.K., Salvekar P.S. and Ganer D.W., April 1999, RR-085.
- On step mountain eta model, Mukhopadhyay P., Vaidya S.S., Sanjay J. and Singh S.S., October 1999, RR-086.
- Land surface processes experiment in the Sabarmati river basin: an overview and early results, Vernekar K.G., Sinha S., Sadani L.K., Sivaramakrishnan S., Parasnis S.S., Brij Mohan, Saxena S., Dharamraj T., Pillai, J.S., Murthy B.S., Debaje, S.B., Patil, M.N. and Singh A.B., November 1999, RR-087.
- Reduction of AGCM systematic error by Artificial Neural Network: A new approach for dynamical seasonal prediction of Indian summer monsoon rainfall, Sahai A.K. and Satyan V., December 2000, RR-088.
- Ensemble GCM simulations of the contrasting Indian summer monsoons of the 1987 and 1988, Mujumdar M. and Krishnan R., February 2001, RR-089.
- Aerosol measurements using lidar and radiometers at Pune during INDOEX field phases, Maheskumar R.S., Devara P.C.S., Raj P.E., Jaya Rao Y., Pandithurai G., Dani K.K., Saha S.K., Sonbawne S.M. and Tiwari Y.K., December 2001, RR-090.
- Modelling studies of the 2000 Indian summer monsoon and extended analysis, Krishnan R., Mujumdar M., Vaidya V., Ramesh K.V. and Satyan V., December 2001, RR-091.
- Intercomparison of Asian summer monsoon 1997 simulated by atmospheric general circulation models, Mandke S.K., Ramesh K.V. and Satyan V., December 2001, RR-092.
- Prospects of prediction of Indian summer monsoon rainfall using global SST anomalies, Sahai A.K., Grimm A.M., Satyan V. and Pant G.B., April 2002, RR-093.
- Estimation of nonlinear heat and momentum transfer in the frequency domain by the use of frequency co-spectra and cross-bispectra, Chakraborty D.R. and Biswas M.K., August 2002, RR-094
- Real time simulations of surface circulations by a simple ocean model, Reddy P.R.C., Salvekar P.S., Ganer D.W. and Deo A.A., January 2003, RR-095
- Evidence of twin gyres in the Indian ocean : new insights using reduced gravity model by daily winds, Reddy P.R.C., Salvekar P.S., Ganer D.W. and Deo A.A., February 2003, RR-096
- Dynamical seasonal prediction experiments of the Indian summer monsoon, Mujumdar M., Krishnan R. and Satyan V., June 2003, RR-097
- Thermodynamics and dynamics of the upper ocean mixed layer in the central and eastern Arabian Sea, Gnanaseelan C., Mishra A.K., Thompson B. and Salvekar P.S., August 2003, RR-098
- Measurement of profiles and surface energy fluxes on the west coast of India at Vasco-Da-Gama, Goa during ARMEX 2002-03, Sivaramakrishnan S., Murthy B.S., Dharamraj T., Sukumaran C. and Rajitha Madhu Priya T., August 2003, RR-099
- Time – mean oceanic response and interannual variability in a global ocean GCM simulation, Ramesh K.V. and Krishnan R., September 2003, RR-100
- Multimodel scheme for prediction of monthly rainfall over India, Kulkarni J.R., Kulkarni S.G., Badhe Y., Tambe S S., Kulkarni B.D. and Pant G.B., December 2003, RR-101

- Mixed layer and thermocline interactions associated with monsoonal forcing over the Arabian Sea, Krishnan R. and Ramesh K.V., January 2004, RR-102
- Interannual variability of Kelvin and Rossby waves in the Indian Ocean from TOPEX/ POSEIDON altimetry data, Gnanaseelan C., Vaid B.H., Polito P.S. and Salvekar P.S., March 2004, RR-103
- Initialization experiments over Indian region with a limited area model using recursive digital filters, Badyopadhyay S. and Mahapatra S., July 2004, RR-104
- Sensitivity of Indian monsoon rainfall to different convective parameters in the relaxed Arakawa-Schubert scheme, Pattanaik D.R. and Satyan V., October 2004, RR-105
- Simulation of tropical Indian ocean surface circulation using a free surface sigma coordinate model, Prem Singh and Salvekar P.S., December 2004, RR-106
- Dynamical ensemble seasonal forecast experiments of recent Indian summer monsoons : an assessment using new approach, Mandke S.K., Sahai A.K. and Shinde M.A., July 2005, RR-107
- Indian Ocean Dipole simulation using modular ocean model, Thompson B., Gnanaseelan C. and Salvekar P.S., July 2005, RR-108
- Influence of El Nino on the biennial and annual Rossby waves propagation in the Indian Ocean with special emphasis on Indian Ocean Dipole, Vaid B.H., Gnanaseelan C., Polito P.S. and Salvekar P.S., January 2006, RR-109
- A Model study of Indian summer monsoon drought of 2002: Influence of tropical convective activity over northwest Pacific, Vinay Kumar, Krishnan R. and Mujumdar Milind, April 2006, RR-110
- Diagnostic analysis of wintertime rainfall events over the Arabian region, Mujumdar M.S., April 2006. RR-111
- Coupled multi model response of "Active" and "Break" phases of Indian summer monsoon to enhanced CO₂ effect, Mandke Sujata K., Sahai A.K., Shinde M.A., Joseph Susmitha and Chattopadhyay R., June 2006, RR-112
- An objective study of Indian summer monsoon variability using the self organizing map algorithms, Sahai A.K. and Chattopadhyay R., July 2006, RR-113
- Intra-seasonal vagaries of the Indian summer monsoon rainfall, Kulkarni Ashwini, Sabade S.S. and Kripalani R.H., July 2006, RR-114
- Termination of Indian Ocean dipole event in an ocean general circulation model, Thompson Bijoy, Gnanaseelan C., Parekh Anant and Salvekar P.S., March 2007, RR-115
- Performance of NCMRWF models in predicting high rainfall spells during SW monsoon season - A study for some cases in July 2004, Khaladkar R.M., Narkhedkar S.G. and Mahan P.N., April 2007, RR-116
- OLR and Rainfall Variations Across India in Relation to Changing Global Atmospheric Thermal Conditions, Singh H.N., Singh Nityanand and Sontakke N.A., April 2007, RR-117
- Roles of Zonally Asymmetric Wind Forcing and Monsoonal Flow on the Indian Ocean Dipole (IOD) Evolution, Krishnan R. and Swapna P., July 2007, RR-118
- Characteristics of Hydrological Wet Season over Different River Basins of India, Ranade Ashwini A., Singh Nityanand, Singh H.N. and N.A. Sontakke, September 2007, RR-119
- Experimental Seasonal Forecast of Indian Summer Monsoon 2007: Statistical and Dynamical Models, Sahai A.K., Mandke S.K., Shinde M.A., Chattopadhyay R., Joseph Susmitha and Goswami B.N., November 2007, RR-120

- Chief Features of Physiographic Rainfall Variations across India during Instrumental Period (1813-2006), Sontakke N.A., Singh H.N. and Singh Nityanand, May 2008, RR-121
- Climatic and Hydroclimatic Features of Wet and Dry Spells and their Extremes across India, Singh Nityanand and Ranade A.A., August 2009, RR-122
- Alarming Rise in the Number and Intensity of Extreme Point Rainfall Events over the Indian Region under Climate Change Scenario, Khaladkar R.M., Mahajan P.N. and Kulkarni J.R., August 2009, RR-123
- Determination of Onset and Withdrawal Dates of Summer Monsoon across India using NCEP/NCAR Re-analysis, Singh Nityanand and Ranade Ashwini A., January 2010, RR-124
- Examining Indian Monsoon Variability in Coupled Climate Model Simulations and Projections, Kulkarni Ashwini, Kripalani R.H., Sabade S.S., February 2010, RR-125
- Large-Scale Wet Spell and Spatio-Temporal Rainfall Extremes over India during 1951-2007, Ranade Ashwini, Singh Nityanand, July 2010, RR-126
- Scientific Evaluation of Air Quality Standards and Defining Air Quality Index for India, Beig Gufran, Ghude Sachin D., Deshpande Aparna, August 2010, RR-127
- Performance of an Ensemble Prediction System based on CFSV2 for the Extended Range Prediction of Active-Break Spells of Indian Summer Monsoon Rainfall during 2011, Abhilash S., Joseph Susmitha, Chattopadhyay R., Pattnaik S., Murali Krishna P., Dey S., Sahai A.K. and Goswami B.N., December 2012, RR-128
- The Importance of Coupled Sea Surface Temperatures to the Northward Propagation of Summer Monsoon Intraseasonal Oscillation, Mandke S.K., Shinde M.A. and Sahai A.K., March 2013, RR-129
- Development of Extended Range Prediction System Using CFSv2 and Its verification, Borah N., Abhilash S., Joseph S., Chattopadhyay R., Sharmila S. and Sahai A.K., July 2013, RR-130
- Extended Range Prediction of Uttarakhand Heavy Rainfall Event by an Ensemble Prediction System based on CFSv2, Joseph Susmitha, Sahai A.K., Sharmila S., Abhilash S., Borah N., Pillai P.A., Chattopadhyay R. and Kumar Arun, November 2013, RR-131
(*ESSO/IITM/SERP/SR/03(2013)/180*)
-