Curriculum Vitae

Name : G. S. Bhat

Born : August 31, 1957

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Education:

Degree	University/Institute	Year
Ph.D.	Aerospace Engineering Indian Institute of Science, Bangalore	1990
Master of Engg.	Mechanical Engineering Indian Institute of Science, Bangalore	1983
Bachelor of Technology	Mechanical Engineering Indian Institute of Technology Mumbai, India 400 076	1981

Present Position:

Professor & Chairman
Centre for Atmospheric and Oceanic Sciences
Indian Institute of Science, Bangalore

Positions Held Earlier:

Professor	Indian Institute of Science, Bangalore	2003-
Associate Professor	Indian Institute of Science, Bangalore	1997-2003
Assistant Professor	Indian Institute of Science, Bangalore	1991-97
Scientific Officer	Indian Institute of Science, Bangalore	1989-91
Scientific Assistant	Indian Institute of Science, Bangalore	1984-89

Research Interests:

Tropical convection, cloud dynamics, mesoscale convection, laboratory modelling of atmospheric phenomena, field experiments, ocean-atmosphere coupling, atmospheric boundary layer.

Other Activities

The Principal Investigator for the atmospheric component in the first two Indian national observational experiments carried out under the Indian Climate Research Programme (ICRP) viz. the Bay of Bengal Monsoon Experiment (BOBMEX) carried out during July-August 1999, the Arabian Sea Monsoon Experiment (ARMEX) carried out over the west coast of India during 2002-3.

Awards:

1. **PRL Award** for the year 2001 in the field of Earth and Planetary Sciences given by Physical Research Laboratory, Ahmedabad.

2. 2002 **Shanti Swarup Bhatnagar Prize** in earth, Atmosphere, Ocean and Planetary Sciences, given by the Council of Scientific & Industrial Research, New Delhi.

3. **P S Narayana medal** for the best Ph.D. thesis in the Division of Mechanical Sciences, Indian Institute of Science, for the year 1990.

4. **Sabita Choudhuri medal** for the best Ph.D. thesis in the Department of Aerospace Engineering , Indian Institute of Science, for the year 1990.

Fellow/Membership of Professional Bodies:

Fellow, Indian Academy of Sciences, Bangalore India

India Meteorological Society, New Delhi.

Journal publications.

1**.** G. S. Bhat 2006: The Indian drought of 2002 – a subseasonal phenomenon?, *Q. J. Roy. Meteorol. Soc*., **132,** 2583-2602.

2. G. S. Bhat 2006: Near surface temperature inversion over the Arabian Sea due to natural aerosols. *Geophys. Res.Lett.*. **33**, L02802, doi:10.1029/2005GL024157.

3**.** G. S. Bhat, 2005: Convection inhibition energy of the inversion and the suppressed rainfall over the Arabian Sea during July 2002. *Mausam* (ARMEX Special Issue), **56**, 89-96.

4. G. S. Bhat, Prashanth L. Rao, V. G. Sangolli, G. P. Bhat, A. B. Chandelkar, H. Rao and V. B. Kadav, 2005: Diurnal and intraseasonal variations observed on the West Coast of India. *Mausam* (ARMEX Special Issue), **56**, 97-106.

5. G. S. Bhat, G. A. Vecchi and S. Gadgil , 2004: Sea Surface Temperature of the Bay of Bengal derived from TRMM Microwave Imager. *J. Atmos. Ocean Tech*. **21,** .1283-1290.

6. M. S. Narayan, B. M. Rao, Shivani Shah, V. S. Prasad and **G. S. Bhat**, 2004: Role of atmospheric stability over the Arabian Sea and the unprecedented failure of monsoon 2002. *Current Science*, **86**, 101-111.

7. Bhat, G. S., 2003: Measurement of air-sea fluxes over the Indian Ocean and Bay of Bengal. *J. Climate*, **16**, 767-775.

8. Bhat, G. S. , 2003: Some salient features of the atmosphere observed over the North Bay of Bengal during BOBMEX. *Proceedings of the Indian Academy of Sciences (EPS)*, **112**, 131-146.

9. Bhat, G. S., M. A. Thomas, C. P. Chandrasekhar and J. V. S. Raju, 2003: Surface characteristics over the central tropical Indian Ocean observed during INDOEX IFP99. *Boundary-Layer Meteor*, **106**, 263-281.

10. L. Venkatakrishnan, R. Elavarasan, **G. S. Bhat**, A. Krothapalli and L. Lourenco, 2003: Particle image velocimetry study of a cloud-like flow. *Current Science*, **85**, n4, 778-785.

11. Sengupta, D., P. K. Ray and **G. S. Bhat**, 2002: Spring warming of the Eastern Arabian Sea and Bay of Bengal from buoy data. *Geophys. Res. Lett*. Vol. 29, No. 15, C. No. 1734, 2002GL015340).

12. Bhat, G. S., 2002: Near surface variations and surface fluxes over the North Bay of Bengal during the 1999 Indian Summer Monsoon. *J. Geophys. Res., Atmospheres*, **107,** 4336, 10.1029/2001JD000382.

13. Bhat, G. S., A. Chakraborthy, R. S. Nanjundaiah and J. Srinivasan, 2002: Vertical thermal structure of the atmosphere during active and weak phases of convection over the north Bay of Bengal: Observation and model results. *Current Science*, **83**, 296-302.

14. Bhat, G. S., 2001: Near surface atmospheric characteristics over the North Bay of Bengal during the Indian summer Monsoon. *Geophys. Res. Lett*., **28**, 987-990.

15. Bhat, G. S. 2001: The Bay of Bengal Monsoon Experiment: BOBMEX. *Proceedings, Indian National Science Academy -A, Physical Sciences*, **67,A**, 395-404.

16. Bhat G. S, S. Gadgil, P. V. Harish Kumar, S. R. Kalsi, Madhusoodanan, V. S. N. Murty, C. V. K. Prasada Rao, V. Ramesh Babu, L. V. G. Rao, R. R. Rao, M. Ravichandran, K. G. Reddy, P. Sanjeeva Rao, D. Sengupta, D. R. Sikka, J. Swain, P. N. Vinayachandran, 2001: BOBMEX - the Bay of Bengal Monsoon Experiment. *Bull. Amer. Meteor. Soc*., **82**, 2217-2243.

17. Gambheer, A. V., and **G. S. Bhat**, 2001: Diurnal variation of deep cloud systems over the Indian region using INSAT-1B pixel data. *Meteorol. Atmos. Phys*. **78**, 215-225.

18. Gambheer , A. V. and **G. S. Bhat**, 2000: Life Cycle characteristics of deep cloud systems over the Indian Region Using *INSAT-1B* Pixel Data**.** *Mon. Wea. Rev.***, 128,** 4071–4083.

19. Bhat, G. S. and A. Krothapalli, 2000: Simulation of a round jet and a plume in a regional atmospheric model. *Mon. Wea. Rev.,* **128**, 4108–4117.

20. Bhat, G. S., S. Ameenulla, M. Venkataramana and K. Sengupta, 2000: Atmospheric boundary layer characteristics during the BOBMEX-Pilot experiment. *Proc. Indian Acad. Sci., (Earth Planet. Sci.)*, **109**, 229-237.

21. Bhat, G. S. and S. Ameenulla, 2000: Surface meteorological instrumentation for BOBMEX. *Proc. Indian Acad. Sci., (Earth Planet. Sci.)*, **109**, 221-227.

22. Venkataramana, M., K. Sengupta, **G. S. Bhat**, S. Ameenulla, and J. V. S. Raju, 2000: Inertial-dissipation flux measurements over south Bay of Bengal during BOBMEX-Pilot experiment. *Proc. Indian Acad. Sci., (Earth Planet. Sci.)*, **109**, 239-247.

23. Venkatakrishnan, L., **G. S. Bhat** and R. Narasimha, 1999: Experiments on a plume with off-source heating: Implications for cloud fluid dynamics. *J. Geophys. Res*., **104D**, 14271-14281.

24. Bhat, G. S., 1998: The dependence of deep cloud mass flux and area cover on convective and large-scale processes. *J. Atmos. Sci.*, **55**, 2993-2999.

25. Venkatakrishnan, L., **G. S. Bhat**, A. Prabhu, and R. Narasimha, 1998: Visualization studies on cloud-like flows. *Current Science*, **74**, 597-606.

26. Bhat, G S and R Narasimha, 1996: A volumetrically heated jet: Large eddy structure and entrainment characteristics. *J. Fluid Mech.* **325,** 303-330

27. Bhat, G S, 1996: Laser in the study of an ohmically heated jet. *J. Indian Institute of Science*, **76**, 639-649

28. Bhat, G S, J Srinivasan and Sulochana Gadgil, 1996: Tropical deep convection, convective available potential energy and sea surface temperature. *J. Meteor. Soc. Japan*, **74**,155-166.

29. Elavarasan, R., **G S Bhat**, R Narasimha and A Prabhu, 1995: An experimental study of a jet with local buoyancy enhancement. *Fluid Dyn. Res.* **16**, 189-202.

30. Bhat, G S, R Narasimha and S Wiggins, 1990: A simple dynamical system that mimics open-flow turbulence. *Physics of Fluids***, A2(11)**, 1983-2001.

31. Bhat, G S and V H Arakeri, 1989: Dynamics of a two-phase bubble. *Reg. J Energy Heat and Mass Transfer*, **11,** No. 2, 103-107.

32. Bhat G S, R Narasimha and V H Arakeri, 1989: A new method of producing local enhancement of buoyancy in liquid flows. *Experiments in Fluids*, **7**, 99-102.

33. Narasimha R and G S Bhat, 1988: Dynamical systems that mimic flow turbulence. *Current Science*, **57**, 697-702.

34. Das, P K, **G S Bhat** and V H Arakeri, 1987: Some investigations on the propagation of phase change front in a superheated liquid. *Intl. J Heat & Mass Transfer*, **30**, 631-638.