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## Detailed List of Publications in Books and Peer-Reviewed Journals

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### Books:

1. D. Bala Subrahmanyam and Radhika Ramachandran, “Marine Atmospheric Boundary Layer Studies during INDOEX: Observational and Modelling Studies of the Marine Atmospheric Boundary Layer over the Tropical Indian Ocean during INDOEX”, Archive No.: V177160; ISBN (eBook): 978-3-640-98865-5; ISBN (Book): 978-3-640-98891-4, 2011.
2. S. Indira Rani, Radhika Ramachandran and D. Bala Subrahmanyam, “Atmospheric Modelling Studies over India through HRM and ARPS Models: Studies on Lower Atmospheric Processes over South India using Numerical Atmospheric Models and Experiments”, Archive No.: V178406; ISBN (eBook): 978-3-656-00569-8; ISBN (Book): 978-3-656-00584-1, 2011.

### Invited Chapters in Books:

3. D. Bala Subrahmanyam and Radhika Ramachandran, “Applications of Mesoscale Atmospheric Models in Short-Range Weather Predictions during Satellite Launch Campaigns in India”, Chapter in Book titled “Atmospheric Model Applications” Edited by Ismail Yucel; Published by InTech, Janeza Trdine 9, 51000 Rijeka, Croatia. ISBN 978-953-51-0488-9, pp 25 - 42. 2012.  
[ DOI : [10.5772/32518](https://doi.org/10.5772/32518) ]

### Peer-reviewed Journals:

4. Nalini K., Uma K. N., Tiwari Y., and Ramachandran, R, “Satellite- and ground-based measurements of CO<sub>2</sub> over the Indian region: its seasonal dependencies, spatial variability, and model estimates”, International Journal of Remote Sensing, 2018 (In Press, DOI: [10.1080/01431161.2018.1479787](https://doi.org/10.1080/01431161.2018.1479787))
5. Sijikumar S., Vinu Valsala, Nalini K., Uma K. N, Yogesh Tiwari, Santanu Halder, and Radhika Ramachandran, “Observation stations in the Indian Subcontinent for capturing the greenhouse gas footprints - are the locations appropriate?”, Geophysical Research Letters (Communicated, 2018)
6. D. Bala Subrahmanyam, Radhika Ramachandran, S. Indira Rani, S. Sijikumar, T. J. Anurose and Asish Kumar Ghosh, “Location-specific weather predictions for Sriharikota (13.72°N, 80.22°E) through numerical atmospheric models during satellite launch campaigns”, Natural Hazards 61(3): 893 - 910, 2012. [ DOI : [10.1007/s11069-011-9942-1](https://doi.org/10.1007/s11069-011-9942-1) ]
7. M. M. Ali, Sarika Jain and Radhika Ramachandran, “Effect of Temperature and Salinity on Sound speed in the Central Arabian Sea”, The Open Ocean Engineering Journal, 4, 71-76, 2011.
8. S. Indira Rani, Radhika Ramachandran, D. Bala Subrahmanyam, P. K. Kunhikrishnan and Denny P. Alappattu, “Characterization of Sea/Land Breeze circulation along the west coast of Indian subcontinent during pre-monsoon”, Atmospheric Research 95: 367 - 378, 2010.  
[ DOI : [10.1016/j.atmosres.2009.10.009](https://doi.org/10.1016/j.atmosres.2009.10.009) ]

9. D. Bala Subrahmanyam, S. Indira Rani, Radhika Ramachandran, P. K. Kunhikrishnan and B. Prasad Kumar, "Impact of wind speed and atmospheric stability on air-sea interface fluxes over the East Asian Marginal Seas", *Atmospheric Research* 94(1): 81 - 90, 2009. [ DOI : [10.1016/j.atmosres.2008.09.011](https://doi.org/10.1016/j.atmosres.2008.09.011) ]
10. D. Bala Subrahmanyam, S. Indira Rani, Radhika Ramachandran and P. K. Kunhikrishnan, "Nudging of Vertical Profiles of Meteorological Parameters in One-Dimensional Atmospheric Model: A Step Towards Improvements in Numerical Simulations", *Ocean Science Journal* 43(4): 165 - 173, 2008. [ DOI : [10.1007/BF03029921](https://doi.org/10.1007/BF03029921) ]
11. D. Bala Subrahmanyam, Radhika Ramachandran, S. Indira Rani, P. K. Kunhikrishnan and B. Prasad Kumar, "Intercomparison of Air-Sea Interface Fluxes over the Yellow Sea and Korea Strait: Impact of Tsushima Warm Ocean Current", *Boundary-Layer Meteorology* 127: 333 - 344, 2008. [ DOI : [10.1007/s10546-007-9248-8](https://doi.org/10.1007/s10546-007-9248-8) ]
12. Denny P. Alappattu, D. Bala Subrahmanyam, P. K. Kunhikrishnan, Radhika Ramachandran, K. M. Somayaji, R. Venkatesh, G. S. Bhat, A. Bhagvath Singh, "Spatio-temporal Variability of Surface-layer Turbulent Fluxes Over the Bay of Bengal and Arabian Sea During the ICARB Field Experiment", *Boundary-Layer Meteorology* 126: 297 - 309, 2008. [ DOI : [10.1007/s10546-007-9233-2](https://doi.org/10.1007/s10546-007-9233-2) ]
13. D. Bala Subrahmanyam, Radhika Ramachandran, S. Indira Rani and B. Prasad Kumar, "Air-sea interaction processes over the east-asian marginal seas surrounding the Korean peninsula", *Annales Geophysicae* 25: 1477 - 1486, 2007. [ [www.ann-geophys.net/25/1477/2007](http://www.ann-geophys.net/25/1477/2007) ]
14. Radhika Ramachandran, U. C. Mohanty, Sujata Pattanayak, M. Mandal and S. Indira Rani, "Location specific forecast of winds and wind shears at Sriharikota during the launch of GSLV-F01", *Current Science*, Vol. 91(3), 285 - 295, 2006.
15. D. Bala Subrahmanyam, Radhika Ramachandran and P. K. Kunhikrishnan, "Improvements in Simulation of Atmospheric Boundary Layer Parameters through Data Assimilation in ARPS Mesoscale Atmospheric Model", In T. N. Krishnamurti, B. N. Goswami and Toshiki Iwasaki (ed): *Remote Sensing and Modelling of Atmospheres, Oceans and Interactions*, Proc. of SPIE Vol. 6404, 64040K, 2006. [ DOI : [10.1117/12.694106](https://doi.org/10.1117/12.694106) ]
16. P. K. Kunhikrishnan, Radhika Ramachandran, Denny P. Alappattu, N. V. P. Kiran Kumar, D. Bala Subrahmanyam, "A Case study of sea breeze circulation at Thumba coast through observations and modelling" In T. N. Krishnamurti, B. N. Goswami and Toshiki Iwasaki (ed): *Remote Sensing and Modelling of Atmospheres, Oceans and Interactions*, Proc. of SPIE Vol. 6404, 640417, 2006. [ DOI: [10.1117/12.694125](https://doi.org/10.1117/12.694125) ]
17. D. Bala Subrahmanyam, Radhika Ramachandran, S. Indira Rani, P. K. Kunhikrishnan and B. Prasad Kumar, "A Comparative Study of Air-Sea Exchange Coefficients and Turbulent fluxes over Indian Sub-continent and Korean Peninsula". In T. N. Krishnamurti, B. N. Goswami and Toshiki Iwasaki (ed): *Remote Sensing and Modelling of Atmospheres, Oceans and Interactions*, Proc. of SPIE Vol. 6404, 640416, 2006. [ DOI : [10.1117/12.694109](https://doi.org/10.1117/12.694109) ]
18. Praveena Krishnan, P. K. Kunhikrishnan, S. M. Nair, Sudha Ravindran, Radhika Ramachandran, D. Bala Subrahmanyam and M. V. Ramana, "Observation of the Atmospheric surface layer parameters over a semi arid region during the solar eclipse of August 11th, 1999", *Proceedings of the Indian Academy of Sciences - Earth and Planetary Sciences* 113(3): 353 - 363, 2004. [ [www.ias.ac.in/article/fulltext/jess/113/03/0353-0363](http://www.ias.ac.in/article/fulltext/jess/113/03/0353-0363) ]
19. D. Bala Subrahmanyam and Radhika Ramachandran, "Wind Speed dependence of the air-sea exchange parameters over the Indian Ocean during INDOEX, IFP-99", *Annales Geophysicae* 21(7): 1667 - 1679, 2003. [ [www.ann-geophys.net/21/1667/2003/](http://www.ann-geophys.net/21/1667/2003/) ]
20. D. Bala Subrahmanyam, Radhika Ramachandran, K. Sen Gupta and T. K. Mandal, "Variability of Mixed Layer Heights over the Indian Ocean and Central Arabian Sea during INDOEX, IFP-99", *Boundary Layer Meteorology* 107(3): 683 - 695, 2003. [ DOI : [10.1023/A:1022811512160](https://doi.org/10.1023/A:1022811512160) ]
21. D. Bala Subrahmanyam and Radhika Ramachandran, "Structural Characteristics of Marine Atmospheric Boundary Layer (MABL) and its associated dynamics over the Central Arabian Sea during INDOEX, IFP-99 Campaign", *Current Science* 85: 1334 - 1340, 2003. [ [www.iisc.ernet.in/currensci/nov102003/1334.pdf](http://www.iisc.ernet.in/currensci/nov102003/1334.pdf) ]

22. D. Bala Subrahmanyam and Radhika Ramachandran, "Air-Sea Interface Fluxes over the Indian Ocean during INDOEX, IFP-99", *Journal of Atmospheric and Solar-Terrestrial Physics* 64(3): 291 - 305, 2002. [ DOI : [10.1016/S1364-6826\(01\)00091-8](https://doi.org/10.1016/S1364-6826(01)00091-8) ]
23. Prakash M. Dolas, Radhika Ramachandran, K. Sen Gupta, Patil, Jadhav, "Atmospheric Surface Layer Processes at a Tropical Inland Station during the Total Solar Eclipse of 11 August 1999", *Boundary Layer Meteorology*, 104, 445 - 461, 2002.
24. M. VenkataRamana, K. Sen Gupta, Radhika Ramachandran, Sudha Ravindran, S. Ameenulla and J.V.S. Raju, "Latitude Variation Of Boundary Layer Height Over Indian Ocean During Pre and First Field Phase (FFP-98) Of INDOEX", *Current Science*, 76, 899 - 902, 1999.
25. K. Sen Gupta and Radhika Ramachandran, "The Tropical Atmospheric Boundary Layer (Review Paper)", *Proc. of the Indian Academy of Science (Space Physics)*, PINSA, 64A(3), 267 - 276, 1998.
26. Radhika Ramachandran, J Winston Jeeva Prakash, K Sen Gupta, K Narayanan Nair and P.K.Kunhikrishnan, "Variability of surface roughness and turbulent intensities at a coastal terrain in India", *Boundary Layer Meteorol.*, 70, 385, 1995.
27. Radhika Ramachandran, K Sen Gupta, K Narayanan Nair, P.K. Kunhikrishnan and J.W.J.Prakash, "On the estimation of the exchange parameters and turbulence intensity and their variability at a coastal terrain", *Exchange processes at the Land surface for a Range of Space and Time Scales*, International Association of Hydrological Science, Publ. No. 212, 195, 1993.
28. Kunhikrishnan, P.K., K. Sen Gupta, Radhika Ramachandran, J Winston Jeeva Prakash and K Narayanan Nair, "Study on thermal internal boundary layer structure over Thumba, India", *Ann. Geophys.*, 11, 52, 1993.
29. Winston Jeeva Prakash, J., Radhika Ramachandran, K. Narayanan Nair, K. Sen Gupta and P.K. Kunhikrishnan, "On the spectral behaviour of atmospheric boundary layer parameters at Thumba, India", *Quart. J. R. Meteorol. Soc.*, 119, 187, 1993.
30. Winston Jeeva Prakash, J., Radhika Ramachandran, K. Narayanan Nair, K. Sen Gupta and P.K. Kunhikrishnan, 1992, "On the structure of seabreeze fronts observed near the coast line of Thumba, India", *Boundary Layer Meteorol.*, 59, 111, 1992.
31. Kunhikrishnan, P.K., K. Narayanan Nair, K. Sen Gupta, Radhika Ramachandran, and J. Winston Jeeva Prakash, "Sodar echo patterns and study of thermal plumes over Thumba", *Mausam*, 41, 583, 1990.
32. Narayanan Nair, K., P.K. Kunhikrishnan, K. Sen Gupta and Radhika Ramachandran, "Study of vertical wind and temperature turbulence in a convective boundary layer from SODAR observations at Thumba", *Indian J. Radio and Space Phys.*, 18, 157, 1989.
33. Sen Gupta, K., P.K.Kunhikrishnan, Radhika Ramachandran and K.Narayanan Nair, "Estimating surface sensible Heat flux using Sodar and surface temperature measurements in the evolving convective boundary layer", *Atmospheric Research*, 20, 119, 1986.

### Symposium Proceedings:

1. Radhika Ramachandran, K. Nalini, K. N. Uma, S.Sijikumar, and Y. Tiwari, "Estimated of CO2 concentration from satellite and ground based measurements over the Indian region and comparison with Flexpart simulation", 42nd COSPAR Scientific Assembly 2018, Pasadena, California, USA, July 14 - 22, 2018.
2. K.N.Uma, K. Nalini, and Radhika Ramachandran, "Response of atmospheric Carbon-Di-Oxide at different geographical locations over the globe during strong E-Nino (2015-2016)", 42nd COSPAR Scientific Assembly 2018, Pasadena, California, USA, July 14 - 22, 2018.
3. Radhika Ramachandran, "Climate Change Challenges in the 21st Century: ISRO initiatives", Proceedings of the Indian Science Congress, January 3-7, 2010, Section V, Earth System Sciences.

4. D. Bala Subrahmanyam, Radhika Ramachandran, T. J. Anurose and Mannil Mohan: "Short-to-Medium Range Weather Forecasting for Satellite Launches: Utilization of NWP Models in conjunction with the Earth Observing Systems", **Bulletin of National Natural Resources Management System**, NNRMS(B) - 35, 37 - 49, 2010.
5. D. Bala Subrahmanyam, S. Indira Rani, Radhika Ramachandran and P. K. Kunhikrishnan: "Can Nudging of Vertical Profiles of Meteorological Parameters improve Performance of a Mesoscale Atmospheric Model ?", **Proceedings of TROPMET 2007**, Advances in Meteorology and Their Applications, Indian Meteorological Society, 62 - 63. 2007.
6. D. Bala Subrahmanyam, Radhika Ramachandran, S. Indira Rani, and P. K. Kunhikrishnan: "An Overview of High-resolution Regional Model (HRM) Simulations during PSLV-C7 and PSLV-C8 Launch Campaigns", **Proceedings of TROPMET 2007**, Advances in Meteorology and Their Applications, Indian Meteorological Society, 66 - 67. 2007.
7. S. Indira Rani, D. Bala Subrahmanyam, Radhika Ramachandran and P. K. Kunhikrishnan: "Statistical Evaluation of High-resolution Regional Model (HRM) Bias and Its incorporation in Near-real Time Simulations: A Step Towards Improvements in Atmospheric Predictability", **Proceedings of TROPMET 2007**, Advances in Meteorology and Their Applications, Indian Meteorological Society, 64 - 65. 2007.
8. Radhika Ramachandran, "Effects of Orography on Circulations over Peninsular India from Three Dimensional Mesoscale Model Simulations", *Meteorology Beyond 2000*, Proc. TROPMET, 194-199, 1999.
9. Radhika Ramachandran, M.V. Ramana, K. Sen Gupta and SudhaRavindran, "Monsoon Boundary Layer Observations From A Meteorological Tower At ISTRAC Station, Lucknow", *Meteorology Beyond 2000*, Proc. TROPMET-1999, 250-254, 1999.
10. Sen Gupta K., T. Sunil, P.K. Kunhikrishnan and Radhika Ramachandran, "On The Growth of Atmospheric Boundary Layer At A Coastal Site", Proc. 2nd Workshop on ISRO-GBP:-02-98, 247-252, 1998.
11. Sen Gupta, K., P.K. Kunhikrishnan, Radhika Ramachandran, J. Winston Jeeva Prakash and K.Narayanan Nair, "On the characteristics of coastal atmospheric boundary layer", Proc. I Workshop on ISRO-Department of Space IGBP I/D-GBP results, DOS, Bangalore, 91, 1993.
12. Sen Gupta, K, Narayanan Nair, P.K. Kunhikrishnan, Radhika Ramachandran and J. Winston Jeeva Prakash, "On the characteristics of Thermal Internal Boundary Layer (TIBL) observed at a Coastal site, Thumba in India", Proc. V International Symposium on Acoustic Remote Sensing of the Atmosphere and Oceans, Acoustic Remote Sensing, Ed. SP. Singal, Tata McGrawHill Publ. Co. Ltd., New Delhi, 315, 1990.
13. Narayanan Nair, K, P.K. Kunhikrishnan, Radhika Ramachandran, K.SenGupta and J.Winston Jeeva Prakash, "Surface Layer studies using towerbased measurements at Thumba, India", Proc.V. International Symposium on Acoustic Remote Sensing of the Atmosphere and Oceans, Acoustic Remote Sensing, Ed. SP Singal, Tata McGrawHill Publ. Co. Ltd., New Delhi, 325, 1990.
14. Narayanan Nair, K, K. Sen Gupta, P.K. Kunhikrishnan, Radhika Ramachandran, S. Muraleedharan Nair, K.C. Suma Bai and T. Sunil, "Interaction of mesoscale processes with Atmospheric Boundary Layer (ABL) for a tropical sea-shore station", Proc. I Workshop on ISRO-Department of Space IGBP I/D-GBP results, DOS, Bangalore, 107, 1993.

### Scientific Reports:

1. Subrahmanyam, D. B., R. Ramachandran, T. J. Anurose and Freddy P. Paul, "A Scientific Report on the COSMO (Consortium for Small-scale Modelling) model simulations in support of the RLV-TD mission", SPL Scientific Report (Submitted to SPL Library Committee), 198pp., 2016.
2. Radhika Ramachandran, D. BalaSubrahmanyam and P.K. Kunhikrishnan:, 2007 High resolution Regional Model (HRM) Simulations of Meteorological Parameters over Sriharikota during PSLV-C7 Launch A Preliminary Report : SPL Scientific Report: SR:01:2007.

3. Radhika Ramachandran, UC Mohanty, Sujata Pattanayak and Indira Rani: Verification of Regional /Mesoscale Model Simulations at SHAR in connection with the GSLV-F01 Launch on September 20, 2004: SPL:SR:002:04.
4. Radhika Ramachandran, UC Mohanty, NV Sam and AK Das: Evaluation and Verification of Simulation of winds using regional models MM5 and HRM at a launch site over S.India, SPL Technical Report,SPL:SR:01:2003.
5. Radhika Ramachandran, UC Mohanty, NV Sam, D BalaSubrahmanyam and Praveena Krishnan: Evaluation and Verification of simulations of wind over S.India using regional models MM5 and HRM during GSLV launch, SPL scientific Report SPL, SPL:SR:02:2003.
6. Prakash M Dolas, Radhika Ramachandran and D BalaSubrahmanyam: Mesoscale Modelling for SHAR: SPL:01:2001.
7. Subrahmanyam, D.B., Radhika Ramachandran, K. Sen Gupta, Praveena Krishnan, P.K. Kunhikrishnan and SudhaRavindran, Marine Atmospheric Boundary Layer (MABL) Studies Over The Indian Ocean During INDOEX, IFP-99, SPL:02: 2001.
8. Radhika Ramachandran, D. BalaSubrahmanyam, S.K. Pandey and C.D. Sharma, A Brief Report On The Atmospheric Boundary Layer Studies At ISRO Satellite Tracking Station (ISTRAC) Ground Station , Lucknow, SPL:02, 2000.
9. Radhika Ramachandran and Prakash M. Dolas, MSSHAR-1, Development Of A Mesoscale Forecast Model For SHAR (First Report), SPL: SR: 01:2000, VSSC, Thiruvananthapuram, January 2000.
10. Sen Gupta K., P.K. Kunhikrishnan, SudhaRavindran, Radhika Ramachandran, Peter George and M. VenkataRamana, Results Of The Boundary Layer Experiments During INDOEX Pre-Cruise Inter Comparison Experiment At Trivandrum, SPL: SR: 003:98, VSSC, Thiruvananthapuram, October 1998.
11. Radhika Ramachandran and Sethu Raman, Numerical Simulations Of The Interactions Between The Western Ghats And The Sea Breeze Circulation Over Peninsular India During Northeast And South West Monsoons, Dept of MEAS, North Carolina State University, Raleigh, North Carolina, USA, 1997.
12. K Narayanan Nair, K SenGupta, PK Kunhikrishnan, Radhika Ramachandran: Introduction to Atmospheric Boundary Layer, SPL:SR:003:86, SPL, VSSC, Trivandrum, 1986.
13. K Narayanan Nair, K SenGupta, PK Kunhikrishnan, RadhikaRamachandran, Boundary Layer Studies at Thumba, SPL:SR:004:86, SPL, VSSC, Trivandrum, 1986.
14. Peter George, PK Kunhikrishnan,K Narayanan Nair, K SenGupta, Radhika Ramachandran, Tristatic Acoustic Radar:SPL:TR:02:86, 1986.

### **Selected Recent Presentations in Conferences (International):**

1. Radhika Ramachandran, Nalini K., Uma K. N., Sijikumar S., Yogesh Tiwari, “Estimates of CO2 concentration from satellite and ground based measurements over the indian region and comparison with flexpart simulations”, 42nd COSPAR Scientific Assembly 2018. (accepted for oral presentation)
2. Sijikumar S., Vinu Valsala, Radhika Ramachandran, Nalini K., Uma K. N., Yogesh Tiwari, “Optimal design of observational network over India for maximum Indian subcontinental CO2 footprint”, 42nd COSPAR Scientific Assembly 2018. (accepted for oral presentation)
3. Uma K. N., Nalini K., Radhika Ramachandran, “Response of Atmospheric Carbondioxide at different geographical locations over the globe during E-Nino (2015-2016)”, 42nd COSPAR Scientific Assembly 2018. (accepted for oral presentation)
4. D. Bala Subrahmanyam, Radhika Ramachandran, Nalini K., Freddy P. Paul, Roshny S., “Performance Evaluation of a Regional NWP Model COSMO during the passage of a Very Severe Cyclonic Storm”, 42nd COSPAR Scientific Assembly 2018. (accepted for poster presentation)

5. Radhika Ramachandran: Estimation of CO<sub>2</sub> fluxes over India using , Satellite observations, In-situ Measurements and Atmospheric Transport Models, Session on Climate Change-Modelling and Reanalysis, International Conference on Climate Change and Disaster Management, Feb 26-28, 2015, Kovalam, Trivandrum
6. K. Nalini, K. N. Uma, Y. Tiwari and Radhika Ramachandran, "A quantitative Comparison of GOSAT CO<sub>2</sub> Concentration with Carbon Tracker and Flask measurements over the Indian region", SPIE Conference, Delhi, April 4-7, 2016 .
7. D. Bala Subrahmanyam and Radhika Ramachandran: Nowcasting at Sriharikota through ARPS Model Simulations for predictions of Thunderstorms during PSLV-C11 (Chandrayaan-1) Mission, Indo-Russian Workshop on Climate Change (INDORUSCG-09), Cochin, October 08-09, 2009.
8. S. Indira Rani, Radhika Ramachandran, D. BalaSubrahmanyam and P.K.Kunhikrishnan: HRM simulation of Mountain wave genesis and Propagation over the Western Ghats of Indian Sub-continent Third International HRM Workshop, Hanoi, Vietnam, 24-28 November 2008 (Invited Lecture)
9. D. Bala Subrahmanyam, Radhika Ramachandran, S. Indira Rani and P.K. Kunhikrishnan: Numerical simulations of Meteorological fields over Sriharikota during Satellite Launch Campaigns through High-resolution Regional Model (HRM): An Overview Third International HRM Workshop, Hanoi, Vietnam, 24-28 November 2008 (Invited Lecture)
10. Radhika Ramachandran, D. BalaSubrahmanyam and S. Indira Rani: Model Bias Evaluation of Wind Fields and Other related Parameters Predicted by HRM at Sriharikota (SHAR) in India, Second International HRM Workshop, Madrid, Spain, October, 2006. (Invited Lecture)
11. S. Indira Rani, Radhika Ramachandran and D. BalaSubrahmanyam: Estimation of Air-Sea Exchange Coefficients over Coastal Zones in India, International conference on Mesoscale Processes in Atmosphere, IMPA 2006, Indian Institute of Technology, Delhi, February 14-17, 2006. (Invited Lecture)
12. Radhika Ramachandran, S. Indira Rani, U. C. Mohanty, M. Mandal , Sujata Pattanayak, SuchandraAichBhowmick and SoorajHarshan: Comparative study of prediction of a thunderstorm event during launch of PSLV-C6 over Sriharikota, International conference on Mesoscale Processes in Atmosphere, IMPA 2006, Indian Institute of Technology, Delhi, February 14-17, 2006 (Invited Lecture)
13. Radhika Ramachandran, UC Mohanty, Sujata Pattanayak and S.IndiraRani:Numerical Weather Prediction at a rocket launch site on the east coast of India, International Symposium-TCUP Tropical Cyclones and its Prediction, Bhuvaneshwar, Jan 5-6, 2005. (Invited Lecture)
14. Radhika Ramachandran, UC Mohanty, NV Sam, Sujata Pattanayak, D BalaSubrahmanyam and S. Indira Rani: HRM simulation of Winds at a tropical site in India and verification with observations and MM5 model simulations, First International HRM Workshop, Rio-de-Janeiro, Brazil, September 5-10, 2004.(Invited Lecture)

### **Selected Recent Presentations in Conferences (National):**

1. K. Nalini, K. N. Uma, Y. Tiwari and R. Ramachandran "A quantitative Comparison of GOSAT CO<sub>2</sub> Concentration with Carbon Tracker, AIRS and Flask measurements over Indian region" , National Space Science Symposium , VSSC, Trivandrum, Feb, 2016.
2. K. N. Uma, K. Nalini and R. Ramachandran "A Quantitative Variability of the CO<sub>2</sub> mixing ratios over the Indian region using GOSAT, Carbon Tracker and AIRS" , National Space Science Symposium , VSSC, Trivandrum, Feb, 2016.
3. Ramachandran, R., D. B. Subrahmanyam and S. Indira Rani, Short-range Weather Predictions at Space Physics Laboratory of ISRO: A Saga of two decades, 19th National Space Science Symposium (NSSS-2016), SPL, VSSC, Thiruvananthapuram,
4. S. Indira Rani, Radhika Ramachandran and D. BalaSubrahmanyam and P.K. Kunhikrishnan: Numerical Simulation of Mountain Waves Over Western Ghats, National Space Science Symposium, Radio Astronomical Centre, Ootty, February 2008.

5. S. Indira Rani, Radhika Ramachandran and D. BalaSubrahamanyam and P.K. Kunhikrishnan: Numerical Simulation of Thunderstorm over a tropical station along the west coast of Indian Subcontinent- A case Study, National Space Science Symposium, Radio Astronomical Centre, Ooty, February 2008.
6. S. Indira Rani, D. BalaSubrahamanyam, Radhika Ramachandran and P.K. Kunhikrishnan: Statistical Evaluation of High Resolution Regional Model (HRM)- Bias and its incorporation in near-real time simulations: A step towards improvements in atmospheric predictability, National Space Science Symposium, Radio Astronomical Centre, Ooty, February 2008.
7. D. Bala Subrahamanyam, S. Indira Rani, Radhika Ramachandran and P.K. Kunhikrishnan: How realistic are the high values of sensible heat flux over the Korean Strait. Is it a direct impact of Tushima Warm Current?.National Space Science Symposium, Radio Astronomical Centre, Ooty, February 2008.
8. D. Bala Subrahamanyam, S. Indira Rani, Radhika Ramachandran and P.K. Kunhikrishnan: Can nudging of vertical profiles of meteorological parameters improve performance of mesoscale atmospheric model? National Space Science Symposium, Radio Astronomical Centre, Ooty, February 2008.
9. D. Bala Subrahamanyam, S. Indira Rani, Radhika Ramachandran and P.K. Kunhikrishnan: Estimation of Air-Sea Interface fluxes from Oceanic Buoys: How realistic are the unusually high values of sensible heat fluxes over the warm oceanic current region? National Seminar on Emerging Trends in Space and Aviation Meteorology (SAM08), 2008.
10. Radhika Ramachandran, D. Bala Subrahamanyam, S. Indira Rani and P.K. Kunhikrishnan: Statistical skill analysis of High resolution Regional Model (HRM) during PSLV-C7 and PSLV-C8 Launch campaigns. A step towards improvements in Model simulated forecasts. National Seminar on Emerging Trends in Space and Aviation Meteorology (SAM08), 2008.
11. Radhika Ramachandran: An Overview of High-resolution Regional Model (HRM) Simulations during PSLV-C7 and PSLV-C8 Launch Campaigns, National Seminar on Emerging Trends in Space and Aviation Meteorology (SAM08), New Delhi, February 18 19, 2008. (Invited)
12. Subrahamanyam, D. B., S. Indira Rani, Radhika Ramachandran and P. K. Kunhikrishnan: Can Nudging of Vertical Profiles of Meteorological Parameters Improve Performance of a Mesoscale Atmospheric Model?, TROPMET 2007, Advances in Meteorology and their Applications, Bhopal, 17 19 December 2007.
13. Subrahamanyam, D. B., Radhika Ramachandran, S. Indira Rani and P. K. Kunhikrishnan: An Overview of High-resolution Regional Model (HRM) Simulations of Meteorological Fields during PSLV-C7 and PSLV-C8 Launch Campaigns, TROPMET 2007, Advances in Meteorology and their Applications, Bhopal, 17 19 December 2007.
14. Rani, S. I., Subrahamanyam, D. B., Radhika Ramachandran and P. K. Kunhikrishnan: Statistical Evaluation of High-resolution Regional Model (HRM) Bias and its incorporation in Near Real-time Simulations: A Step towards improvements in atmospheric predictability, TROPMET 2007, Advances in Meteorology and their Applications, Bhopal, 17 19 December 2007.
15. S. Indira Rani, Radhika Ramachandran and D. BalaSubrahamanyam: A comparative Study of Exchange coefficients and turbulent fluxes over Tropical and Midlatitude Oceans Using Buoy Data, National Space Science Symposium, Andhra University, Vishakapatnam, February 9-12, 2006.
16. Radhika Ramachandran and S. Indira Rani: Thunderstorm Prediction at a Rocket Launch Site Simulated by a Non-Hydrostatic Model, National Space Science Symposium, Andhra University, Vishakapatnam, February 9-12, 2006.
17. S. Indira Rani, Radhika Ramachandran and PK Kunhikrishnan: Air- Sea interaction at Yellow Sea region of Korea-Its dependence on offshore distance and oceanic depth, Atmosphere Ocean Interaction and Monsoon Variability-ATMOCIN 2006, Cochin University of Science and Technology, Cochin, Kerala, Jan 11-13, 2006.