

## LIAN XIE

Professor, Department of Marine, Earth and Atmospheric Sciences (MEAS), North Carolina State University (NCSU)

### **RESEARCH INTERESTS:**

Regional Climate Analysis and Modeling, Atmosphere-Ocean Interactions, Tropical Cyclones, Coastal Meteorology and Oceanography

### **EDUCATION:**

7/1992: Ph.D. (Meteorology and Physical Oceanography), University of Miami, Miami, FL.

1/1985: M.S. (Meteorology), Nanjing Institute of Meteorology, Nanjing, China. .

7/1982: B.Sci., (Meteorology), Nanjing Institute of Meteorology, Nanjing, China.

### **ACADEMIC APPOINTMENTS:**

2005 --- *present* Professor, NCSU, Department of MEAS, Raleigh, North Carolina.

2001 --- 2005 Associate Professor with tenure, NCSU/MEAS, Raleigh, North Carolina.

1998 --- 2001 Assistant Professor, NCSU/MEAS, North Carolina.

1992 --- 1998 Visiting Assistant Professor and Coordinator of Cooperative Marine Science Ph.D. Program, NCSU/MEAS, Raleigh, North Carolina.

1987 --- 1992: Research Assistant, University of Miami, RSMAS, Miami, Florida.

1985 --- 1987: Lecturer, Department of Meteorology. Nanjing Institute of Meteorology, Nanjing, China.

### **PROFESSIONAL SERVICES AND AWARDS:**

Chair, Sino-US Workshop on Dust Storms and Their Effects on Human Health, Raleigh, NC.

November 25-26, 2002 (Co-sponsored by NASA, NOAA, EPA, NIEHS, and USDA).

Coordinator, 2004 International Environment Forum, Beijing, September 12-15, 2004.

Co-Chair, "Storm surge modeling and forecasting training workshop", NWS, Raleigh, NC, May 1, 2006.

Science Advisory Panel: Beijing Urban Environment Research Program, 2002-2006.

Session Chair, OS16: Coastal and Mesoscale Air-Sea Interactions, 2008 Asia Oceania Geophysical Society Annual Meeting, Bussan, Korea.

Steering Committee, Open Source POM model development team

2000 – present: Editorial Board, *Advances in Atmospheric Sciences*.

2005 – present: Editorial Board, *Journal of Ocean University of China*.

1998 – 2000: Associate Editor, *Weather and Forecasting*.

1996 – 1997: Member of U.S. Weather Research Program Prospectus Development Team on Landfalling Hurricanes (PDT5).

1995 – 1996: Member of U.S. Weather Research Program Prospectus Development Team on Coastal Meteorology (PDT3).

2002 – 2005: College Computer Committee, College of Physical and Mathematical Sciences

2000 – 2005: Chair, Departmental Computing and Network Facility Committee,

2004 – 2007: Chair, Departmental Seminar Committee.

2007 – 2008: Departmental Computing and Network Facility Committee

2007 – 2008: Departmental Teaching Peer Review Committee

2007 – 2008: Chair, Environmental Cluster Development Committee

2007 – 2008: Co-Chair, Climate Dynamics Search Committee

Professional and Honor Society Membership: American Meteorological Society (AMS), American Association for the Advancement of Sciences (AAAS), Sigma-Xi Honor Society.

1998: National Weather Service Certificate of Appreciation Award.

2003: National Weather Service Award for Collaborative Research.

2007: Cheung-Kong Distinguished Scholar award by the Ministry of Education of China.

2007: World Meteorological Organization Invited Lecturer for “International Training Workshop on Tropical Cyclone Disaster Reduction”, Guangzhou, China, March 26-31, 2007.

## **PUBLICATIONS (73 Refereed Publications)**

1. Wang, B., C. Jang, L. Xie, S. Phillips, D. Q. Tong, Impact of Trans-Pacific transport on particulate sulfate in the United States: modeling assessment of continental influxes using CMAQ, *Geophysical Research Letters* (in review).
2. Elinor Keith and Lian Xie, Predicting Atlantic Tropical Cyclone Seasonal Activity in April. *Weather and Forecasting* (in review).
3. Xu, X., L. Xie, X. Cheng, J. Xu, X. Zhou, G. Ding, 2008: Application of an Adaptive Nudging Scheme in Air Quality Forecasting in China. *J. of Applied Meteorology and Climatology* (in press).
4. Lynch, A., L. Lestak, P. Uotila, E. Cassano, L. Xie, 2008: A factorial analysis of the storm surge flooding in Barrow, Alaska. *Monthly Weather Review* (in press).
5. Xia, Meng, Lian Xie, and L.J. Pietrafesa, 2008: A numerical study of storm surge in the Cape Fear River Estuary and adjacent coast. *J. of Coastal Research* (in press).
6. Xie, L., H. Liu and M. Peng, 2008: The effect of wave-current interactions on the storm surge and inundation in Charleston Harbor during Hurricane Hugo 1989. *Ocean Modelling*, 20, 252-269.
7. Peng, S., L. Xie, L.J. Pietrafesa, 2007: Correcting the errors in the initial conditions and boundary conditions of storm surge simulation using an Adjoint Optimal Technique. *Ocean Modelling*, 18, 175-193.
8. Liu, Huiqing, Lian Xie, L.J. Pietrafesa, S. Bao: 2007: Sensitivity of Wind Waves to Hurricane Wind Characteristics. *Ocean Modelling*, 18, 37-52.
9. Xia, Meng and Lian Xie, 2007: Numerical Modeling of Cape Fear River Estuary Plume. *Estuaries and Coasts*, 30, 698-709.
10. Xia, Meng, Lian Xie, and L.J. Pietrafesa, 2007: A numerical study of storm surge in the Cape Fear River Estuary and adjacent coast. *J. of Coastal Research* (in press).
11. Xie, L., X. Liu, L.J. Pietrafesa, 2007: Effect of bathymetric curvature on the Gulf Stream instability in the vicinity of the Charleston Bump. *J. of Physical Oceanography*, 37, 452-475.
12. Xie, L. and T. Yan, 2007: North Pacific typhoon track patterns and their potential connection to Tibetan Plateau snow cover. *Natural Hazards*. DOI : 10.1007/s11069-006-9087-9.
13. Xu, X., X. Shi, L. Xie, Y. Wang, 2007: Consistency of interdecadal variation in the summer over eastern China and Heterogeneity in spring surface air temperature. *J. Meteorological Society of Japan*, 85A, 311-323.
14. Lin, J., L. Xie, L.J. Pietrafesa, J. Ramus, Hans Paerl, 2007: Water quality gradients across Albemarle-Pamlico estuarine system: seasonal variation and model applications. *J. of Coastal Research*, 23, 213-229.
15. Anyah, R.O., Fredrick H. M. Semazzi, and Lian Xie, 2006: Simulated physical mechanisms associated with climate variability over Lake Victoria basin in East Africa, *Monthly Weather Review*, 134, 3588–3609.
16. Jing Lin, Lian Xie, Len J. Pietrafesa, Jian Shen, Michael A. Mallin and Michael J. Durako, 2006: Dissolved oxygen stratification in two micro-tidal partially-mixed estuaries, *Estuarine, Coastal and Shelf Sciences*, 70, 423-437. doi:10.1016/j.ecss.2006.06.032.
17. Xia, M., Lian Xie, L.J. Pietrafesa, 2006: Cape Fear River Estuary Plume Modeling: Model Configuration and Sensitivity Experiments. In M.L. Spaulding eds., *Estuarine and Coastal Modeling* 9, 88-104, doi 10.1061/40876(209)6.
18. Peng, S.-Q., and L. Xie, 2006: Effect of Determining Initial Conditions by Four-Dimensional Variational Data Assimilation on Storm Surge Forecasting. *Ocean Modelling*, 14, 1-18

19. Lin, J., L. Xie, and L.J. Pietrafesa, J.S. Ramus, and H.W. Paerl, 2006: Water Quality Gradients across Albemarle-Pamlico Estuarine System: Seasonal Variations and Model Applications. *Journal of Coastal Research*, 23, 213-229.
20. Peng, M., L. Xie, L.J. Pietrafesa, 2006: Tropical cyclone induced asymmetry of sea level surge and fall and its presentation in a storm surge model with parametric wind fields. *Ocean Modeling*, 14, 81-101.
21. Peng, M., Xie, L. and L.J. Pietrafesa, 2006: A Numerical Study on Hurricane Induced Storm Surge and Inundation in Charleston Harbor, South Carolina. *J. Geophys. Res.*, 111, C08017, doi:10.1029/2004JC002755.
22. Bohm, E., L.J. Pietrafesa, L. Xie, J. Churchill, T.S. Hopkins, and J. R. Hendricks, 2006: Continental Margin Slope Sea Level and Flow Field Variability Induced by Lateral Movements of the Gulf Stream in the Southern Middle Atlantic Bight, *Progresses in Oceanography* (in press).
23. Xie, L., S. Bao, L.J. Pietrafesa, K. Foley and M. Fuentes, 2006: A Real-Time Hurricane Surface Wind Forecasting Model: Formulation and Verification. *Monthly Weather Review*, 134, 1355-1370.
24. Xie L., T. Yan, L. J. Pietrafesa, T. Karl, X. Xu, 2005: Relationship between western North Pacific typhoon activity and Tibetan Plateau winter and spring snow cover, *Geophys. Res. Lett.*, 32, L16703, doi:10.1029/2005GL023237.
25. Xu, X., L. Xie, G. Ding, and L. Bian, 2005: Beijing air pollution project to benefit 2008 Summer Olympic Game. *Bulletin of American Meteorological Society*, 86, 1543-1544.
26. Xu X., Shi X., Xie L., Ding GA, Miao QJ, Ma JZ, Zheng XD, 2005: Spatial character of the gaseous and particulate state compound correlation of urban atmospheric pollution in winter and summer. *Science in China, Series d-Earth Sciences*, 48 (suppl. 2), 64-79.
27. Xu, X., L. Xie, X. Zhang, and W. Yao, 2005: A Mathematical Model for Forecasting Tropical Cyclone Tracks. *Nonlinear Analysis Series B: Real World Applications*, 7, 211-224.
28. Xie, L., T. Yan, L. Pietrafesa, J. Morrison, and T. Karl, 2005: The climatology and interannual variability of regional landfall hurricane frequency and its association with North Atlantic hurricane tracks. *Journal of Climate*, 18: 5370-5381.
29. Xie, L., T. Yan, and L.J. Pietrafesa, 2005: The effect of Atlantic sea surface temperature dipole mode on hurricanes: Implications for the 2004 Atlantic hurricane season. *Geophysical Research Letters*, 32, doi: 10.1029/2004GL021702.
30. Xu, X., G. Ding, L. Xie and L. Bian, 2004: Characteristics of Atmospheric Environmental of Boundary Layer Structure of City Community in Becapex and Integrate Influence. *ACTA Meteorological Sinica*, 62, 663-671.
31. Guan, C. and L. Xie, 2004: A unified linear parameterization of the drag coefficient over the surface of the ocean. *J. Physical Oceanography*, 34, 2847-2851.
32. Xie, L., 2004: Air-sea interactions associated with mesoscale weather systems. In *Observation, Theory and Modeling of Atmospheric Variability*. X. Zhu edited, World Scientific Series on Meteorology of East Asia, World Scientific Publishing Co., 612.
33. Xie, L., L.J. Pietrafesa, and M. Peng, 2004: Incorporation of a mass-conserving inundation scheme into a three-dimensional storm surge model. *J. Coastal Research*, 20, 1209-1223.
34. Bao, S., L. Xie and S. Raman, 2004: A numerical study of a TOGA-COARE Squall-line using a coupled mesoscale atmosphere-ocean model. *Advances in Atmospheric Sciences*, 21, 707-714.
35. Peng, M., L. Xie, and L.J. Pietrafesa, 2004: A numerical study of storm surge and inundation in the Croatan-Albemarle-Pamlico Estuary System. *Estuarine, Coastal and Shelf Science*, 59, 121-137.
36. Song, Y., F. Semazzi, L. Xie, and L.J. Ogallo, 2004: A coupled regional climate model for Lake Victoria basin of east Africa. *International Journal of Climate*, 24, 57-75.
37. Bao, S. S. Raman, and L. Xie, 2003: Numerical simulation of the response of the ocean surface layer to precipitation. *Pure and Applied Geophysics*, 160, 2419-2446.

38. Xie, L., L.J. Pietrafesa, and K. Wu, 2003: A numerical study of wave-current interaction through surface and bottom stresses: Coastal ocean response to Hurricane Fran 1996. *J. Geophys. Res.*, 108, (C2, 3049).
39. Pietrafesa, L.J. Xie, L., D. Dickey, M. Peng, S. Bao, 2003. The North Carolina State University coastal and estuary storm surge and flood prediction system. *Ecosystems and Sustainable Development*, 4, 100-109.
40. Manghnani, V., B. Subrahmanyam, L. Xie and J. M. Morrison, 2003: Numerical simulation of seasonal and interannual Indian Ocean upper-layer circulation using MICOM, *J. Geophysical Research*, 108, No. C7, 3240.
41. Xie, L., L.J. Pietrafesa, and D. Dickey, 2002: The mathematical architecture for a coastal estuary modeling and environmental prediction system. Solutions to Coastal Disasters, 441-455.
42. Pietrafesa, L.J., L. Xie, E. Buckley, D. Hilderbrand, M. Peng, 2002: The need for a coastal estuary/inland flood risk index. Chapter in Computer Simulation in Hazard and Risk Mitigation. Wit Press.
43. Pietrafesa, L.J., C.N. Flagg, L. Xie, G.L. Weatherly, J.M. Morrison, 2002: The winter/spring 1996 OMP current, meteorological, sea state and coastal sea level fields, *Deep-Sea Research*, 49, 4331-4354.
44. Bright, R., L. Xie, and L. J. Pietrafesa, 2002: Evidence of the Gulf Stream's influence on tropical cyclone intensity. *Geophysical Research Letters*, **29**, 48/1-48/4.
45. Xie, L., L.J. Pietrafesa, and K. Wu, 2002: Interannual and decadal variability of landfalling tropical cyclones in the Southeast coastal states of the United States. *Advances in Atmospheric Sciences*, 19, 677-686.
46. Song, Y., F. Semazzi, and L. Xie, 2002: Development of a coupled regional climate simulation model for the Lake Victoria basin. In The East African great Lakes: Limnology, Paleolimnology and Biodiversity, E.O Odada and D.O. Olago (eds.) Kluwer Academic Publishers, 153-186.
47. Indeje, M., F. Semazzi, L. Xie, and J. Ogallo, 2001: Mechanistic simulations of the East Africa climate using NCAR Regional Climate Model: The influence of large-scale orography on the Turkano low-level jet. *J. of Climate*, 14, 2710-2724.
48. Xie, L., K. Wu, L.J. Pietrafesa, and C. Zhang, 2001: A numerical study of wave-current interaction through surface and bottom stresses: Part I: Wind-driven circulation in the South Atlantic Bight under uniform winds. *J. Geophys. Res.*, 106, 16841-16856.
49. Pietrafesa, L.J., D. Dickey, L. Xie, 2001: Flooding due to Hurricanes Dennis and Floyd. Chapter 2 in Environmental and Socio-economic impacts of Hurricane Floyd. Carolina Coastal Press.
50. Manghnani, V., J. Morrison and L. Xie, 2001: Heat budget of the Indian Ocean using TOPEX/Poseidon observations and ocean model simulations. *Deep Sea Res.* 49, 1459-1480.
51. Xie, L., J. Morrison, and X. Liu, 2000: Sensitivity of tropical Pacific sea surface temperature to atmospheric forcing in an isopycnic coordinate ocean model. *Global Atmosphere-Ocean System*, Vol. 7, 229-247.
52. Xie, L., L.J. Pietrafesa, C. Zhang, 1999: Subinertial Response of the Gulf Stream system to Hurricane Fran 1996. *Geophysical research Letters*, 26, 3457-3460.
53. Xie, L., L.J. Pietrafesa, 1999: Systemwide modeling of wind and density driven circulation in the Croatan-Albemarle Pamlico estuary system. Part I: Model configuration and testing. *J. Coastal Research*, 15, 1163-1177.
54. Xie, L., and D. Eggleston, 1999: Computer simulation of wind-induced estuarine circulation pattern and estuary-shelf exchange processes: The potential role of wind forcing on larval transport. *Estuarine, Coastal and Shelf Sciences*, 49, 221-234.
55. Xie, L., L.J. Pietrafesa E. Bohn, C. Zhang, and X. Li, 1998: Evidence and mechanism of hurricane Fran-induced oceanic cooling in the Charleston trough. *Geophysical Research Letters*, 25, 769-772.

56. Pietrafesa, L.J., L. Xie, J. Morrison, G.S. Janowitz, J. Pelissier, K. Keeter, and R. Neuherz, 1997: Numerical modeling of the storm surge in and around the Croatan-Albemarle-Pamlico estuary system by hurricane Emily of August 1993. *Mausam*, 48, 567-578.
57. Marks, F.D., L.K. Shay, G. Barnes, P. Black, M. DeMaria, B. McCaul, J. Molinari, M. Montgomery, M. Powell, J.D. Smith, B. Tuleya, G. Tripoli, Lian Xie and R. Zehr, 1997: Landfalling tropical cyclones: Forecast problems and associated research opportunities. *Bulletin of the American Meteorological Society*, 79, 305-318.
58. Xie, Lian, L.J. Pietrafesa and S. Raman, 1997: Interaction between surface wind and ocean circulation in the Carolina Capes in a coupled low-order model. *Continental Shelf Research*, 17, 1483-1511.
59. Liu, X., J. Morrison, and L. Xie, 1997: A numerical study of the response of tropical Pacific SST to atmospheric forcing. *Mausam*, 48, 657-668.
60. Xie, Lian, L.J. Pietrafesa and S. Raman, 1997: Coastal ocean-atmosphere coupling. Chapter 11, Coastal Ocean Prediction, CRC Press. C.N.K. Mooers edited.
61. Xie, Lian and Y.-L. Lin, 1996: A numerical study of stratified flow over mesoscale heat sources with application to Carolina coastal frontogenesis. *Monthly Weather Review*, 124, 2807-2827.
62. Xie, Lian, L. J. Pietrafesa and Sethu Raman, 1996: Mesoscale air-sea interaction off the Carolina coast. *Global Ocean and Atmosphere Systems*, 4, 65-88.
63. Xie, Lian , L.J. Pietrafesa and S. Raman, 1996: Air-sea interaction over the continental shelf off the southeast U.S. coast. *Environmental Modeling and Assessment*, 1, 139-149.
64. Rotunno, R., L.J. Pietrafesa, J. Allen, B. Colman, C. Dorman, C. Kreitzberg, M. McPhee, C.N.K. Mooers, G. Mellor, R. Pielke, M. Powell, D. Rogers, J. Smith and L. Xie, 1996: Coastal meteorology and oceanography: Report of the Third Prospectus Development Team of the U.S. Weather Research Program to NOAA and NSF. *Bulletin of the American Meteorological Society*, 77, 1578-1585.
65. Xie, Lian and L. J. Pietrafesa, 1995: Shoreward intrusion of upper-layer warm water induced by prescribed shelf-break temperature perturbation and surface wind stress. *Geophysical Research Letters*, 22, 2585-2588.
66. Xie Lian and Claes Rooth, 1995: The effect of current-induced stress perturbation on baroclinic Rossby waves in a continuously stratified model. *J. Physical Oceanography*, 25, 204-215.
67. Xie, Lian and Claes Rooth, 1994: The effect of current-induced stress perturbations in a coupled atmosphere-ocean model. *J. of Marine Research*, 52, 239-257.
68. Xie, Lian and Sethu Raman, 1994: A simple nonlinear model for shelf air-sea interaction. *Nonlinear World*, 1, 355-371.
69. Rooth Claes and Lian Xie, 1992: Air-sea boundary layer dynamics in the presence of mesoscale surface currents. *J. Geophysical Research*, 97(C9, Oceans), 14431-14438.
70. Zhu Q. and Lian Xie, 1988: 1986-87 Northern winter Asia/Australia circulation anomalies with their relation to the western Pacific SST. *J. Tropical Meteorology*, 4, 254-262.
71. Xie Lian and Q. Zhu, 1987: The numerical experiments for sensitivity of the South China Sea monsoon activity to differential heating in summer. *Collected Papers of Meteorological Science and Technology*, No. 10 (Monsoon Meteorology), China Meteorology Press, Beijing, 183-194.
72. Tang, D. and Lian Xie, 1986: Numerical experiments of the effects of diabatic heating on the low-level cross-equatorial flows. *J. Tropical Meteorology*, 2, 311-319.
73. Xie, Lian, 1986: A diagnostic study of the South China Sea monsoonal circulation during 1986 summer. *J. Nanjing Inst. of Meteorology*, 1986, 2, 129-135.

### **Conference Abstracts and Preprints (93)**

1. Liu, B., C. Guan, and L. Xie, Investigating the impacts of wave state and sea spray on typhoon via a coupled atmosphere-wave system: the idealized case, 28 Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, April 26-May 2, 2008, Orlando, Florida.

2. Keith, E. and L. Xie, Seasonal Prediction of Atlantic Tropical Cyclone Activity, 28 Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, April 26-May 2, 2008, Orlando, Florida.
3. Liu, H. and L. Xie, A numerical study on the effects of wave-current interactions on the height and propagation of sea surface waves in Charleston Harbor during Hurricane Hugo 1989. 28 Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, April 26-May 2, 2008, Orlando, Florida.
4. Tang, Q. and L. Xie, Modeling Inland Flooding Due to Tropical Cyclones. 28 Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, April 26-May 2, 2008, Orlando, Florida.
5. Zhang, X., L. Xie and F. Semazzi, High-Resolution Simulation of the Genesis of Hurricane Danielle (2004). 28 Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, April 26-May 2, 2008, Orlando, Florida.
6. Liu, Y., L. Xie, and J. Morrison, Simulation of El Niño-Southern Oscillation (ENSO) using a HYbrid Coordinate Ocean Model (HYCOM). 28 Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, April 26-May 2, 2008, Orlando, Florida.
7. Deng, Z., L. Xie, T. Yu, Impacts of the Ocean Surface Velocity on Wind Stress Coefficient and Wind Stress over Global Ocean during 1958-2001. 28 Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, April 26-May 2, 2008, Orlando, Florida.
8. Xie, L., B. Liu, C. Guan, X. Zhang, S. Peng, H. Liu, Numerical Simulation of Tropical Cyclone Intensity Using an Air-Sea-Wave Coupled Prediction System. 28 Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, April 26-May 2, 2008, Orlando, Florida.
9. Xie, L., Yanyun Liu, And John Morrison, Simulating Ocean Circulation From Global Ocean To Marginal Seas Using The Hybrid Coordinate Ocean Model: The Galapagos Example. 2007 International Workshop on Marine Physical Variations in marginal seas and their environmental impact. October 29-30, 2007, Qingdao, China.
10. Xie, L., Bin Liu, Changlong Guan, Xuejin Zhang, Shiqiu Peng, Huiqing Liu, Numerical Simulation of Tropical Cyclone Activity Using an Air-Sea-Wave Coupled System. The 14<sup>th</sup> National Workshop on Tropical Cyclones, 6-9 November, 2007, Shanghai, China.
11. Xie, L. Storm surge and coastal flooding. Invited lecture. International Training Workshop on Tropical Cyclone Disaster Reduction. UN World Meteorological Organization. Guangzhou, China, March 26-31, 2007.
12. Fuentes, M. and L. Xie: Spatial temporal modeling framework for hurricane wind fields. Abstracts for the CLAPEM international conference in Lima, Peru, Feb. 27, 2007.
13. Meng Xia, Lian Xie, L.J. Pietrafesa. Hydrodynamics Modeling of Cape Fear River Estuary and adjacent coastal ocean. Joint AERS and SEERS Spring. 2007 Meeting. Mar 15-17, 2007. Pine Knoll Shores, NC.
14. Meng Xia, Lian Xie, L.J. Pietrafesa. A numerical study of the plume in Cape Fear River Estuary and adjacent coastal ocean. The AGU fall meeting. Dec 11-15, 2006. San Francisco, CA.
15. Meng Xia, Lian Xie, L.J. Pietrafesa, Plume Modeling in the Cape Fear River Estuary and Adjacent Ocean. Middle Atlantic Bight Oceanography and Meteorology Meeting. 30-31, October, 2006. Chapel Hill, NC.
16. Xie, L. Charleston Trough and its effect on cross-shelf transport. Qingdao, China, July 18, 2006.
17. Fuentes, M. and L. Xie: Combining data and numerical models for hurricane forecasting. Abstracts for the JSM conference in Seattle, August 8 2006.
18. Fuentes, M. and L. Xie: Data assimilation for hurricane forecasting. Abstracts for the ENAR conference in Tampa, March 13 2006.
19. Yan, T., L. Xie, L. J. Pietrafesa, and T. R. Karl, 2006: Spatial and temporal variability of North Atlantic hurricane tracks. 27th Conference on Hurricanes and Tropical Meteorology. 24-28 April 2006, Monterey, CA ([http://ams.confex.com/ams/27Hurricanes/techprogram/paper\\_107262.htm](http://ams.confex.com/ams/27Hurricanes/techprogram/paper_107262.htm)).
20. Xie, L., T. Yan, L. J. Pietrafesa and T. R. Karl, 2006: Pre-Season Prediction of Landfalling Tropical Cyclone Frequency. 27th Conference on Hurricanes and Tropical Meteorology. 24-28

- April 2006, Monterey, CA ([http://ams.confex.com/ams/27Hurricanes/techprogram/paper\\_108394.htm](http://ams.confex.com/ams/27Hurricanes/techprogram/paper_108394.htm)).
21. Pietrafesa, L. J., T. Karl, D. A. Dickey, L. Xie, T. Yan, S. Bao and M. Peng, 2006: On the variability of tropical cyclones and category shifts. 27th Conference on Hurricanes and Tropical Meteorology. 24–28 April 2006, Monterey, CA.
  22. Peng, M and L. Xie and J. Pietrafesa, 2006: The asymmetry of coastal water level response to landfalling hurricanes simulated by a three-dimensional storm surge model. 27th Conference on Hurricanes and Tropical Meteorology. 24–28 April 2006, Monterey, CA ([http://ams.confex.com/ams/27Hurricanes/techprogram/paper\\_107257.htm](http://ams.confex.com/ams/27Hurricanes/techprogram/paper_107257.htm)).
  23. Peng, S., L. Xie, Effect of Determining Initial Conditions by Four-Dimensional Variational Data Assimilation on Storm Surge Forecasting. 27th Conference on Hurricanes and Tropical Meteorology. 24–28 April 2006, Monterey, CA ([http://ams.confex.com/ams/27Hurricanes/techprogram/paper\\_107684.htm](http://ams.confex.com/ams/27Hurricanes/techprogram/paper_107684.htm)).
  24. Pietrafesa, L.J., T. Karl, D. A. Dickey, L. Xie, T. Yan, S. Bao, and M. Peng, 2006: On the variability of tropical cyclones and category shifts. 27th Conference on Hurricanes and Tropical Meteorology. 24–28 April 2006, Monterey, CA ([http://ams.confex.com/ams/27Hurricanes/techprogram/paper\\_108787.htm](http://ams.confex.com/ams/27Hurricanes/techprogram/paper_108787.htm)).
  25. Liu, H., L. Xie, L.J. Pietrafesa, and M. Peng, 2006: Effect of ocean surface waves on storm surge and coastal flooding. 27th Conference on Hurricanes and Tropical Meteorology. 24–28 April 2006, Monterey, CA ([http://ams.confex.com/ams/27Hurricanes/techprogram/paper\\_107363.htm](http://ams.confex.com/ams/27Hurricanes/techprogram/paper_107363.htm)).
  26. Bao, S., L. Xie, L.J. Pietrafesa, 2006: An asymmetric hurricane wind model for storm surge and wave forecasting. 27th Conference on Hurricanes and Tropical Meteorology. 24–28 April 2006, Monterey, CA ([http://ams.confex.com/ams/27Hurricanes/techprogram/paper\\_107653.htm](http://ams.confex.com/ams/27Hurricanes/techprogram/paper_107653.htm)).
  27. Xie, L., 2006: Interactions between East Asia regional climate and northwest Pacific typhoons. Workshop on Tropical Cyclones and Climate, International Research Institute for Climate and Society, March 27-29, 2006, Columbia University, Palisades, NY.
  28. Zhang, X., L. Xie, F. H. M. Semazzi, and X.-Z. Liang, 2006: The application of WRF-Climate in East Africa: customization of buffer zones, The Doug Lilly Symposium, AMS Annual Meeting, Jan. 30-Feb. 2, 2006, Atlanta, GA.
  29. Xia, L., Lian Xie, L.J. Pietrafesa, and M. Peng, 2005: The Cape Fear River Estuary Modeling System. 18th Biennial Conference of the Estuarine Research Federation, Oct 16-21, 2005. Norfolk, VA.
  30. Xia, L., Lian Xie. The Cape Fear River Estuary Plume Modeling System. 9th international conference on estuarine and coastal modeling. Oct 31-Nov 2, 2005. Charleston, SC.
  31. Xu, X., G. Ding, L. Xie and L. Bian, 2005: Atmospheric Sciences and Air quality conference, April 26-29, 2005, American Meteorological Society, San Francisco, CA.
  32. Xie, L. and Tingzhuang Yan, 2004: Tibetan Plateau, East Asian Monsoon and Western Pacific Landfalling Typhoons. The Fourth International Symposium on Asian Monsoon System, May 24-29. Kunming, China.
  33. Xie, L., L.J. Pietrafesa, S. Bao, and M. Peng, 2004: An introduction to the NCSU Coastal and Estuarine Marine Environment Prediction System (CEMEPS). National Weather Service Marine Meteorology Workshop (Invited), Wilmington, NC, April 16-17, 2004.
  34. Zhang, X. and L. Xie, 2004: “Dynamic downscaling of regional climatic variables”, 2<sup>nd</sup> CWISE Topical Meeting, National Climatic Data Center, Asheville, NC, March 9-10, 2004.
  35. Liu, X., L. Xie, and L.J. Pietrafesa, 2003: Sensitivity of the Carolina Coastal Ocean Circulation to Open Boundary and Atmospheric Forcing. 8 - 12 December 2003, San Francisco, CA.
  36. Pietrafesa, L.J., L. Xie, M. Fletcher, E. Buckley, D. Porter. 2003: Applications of real time data and model predictions to coastal cities such as Charleston, Coastal Commission Workshop. (Invited) S.C. June 23, 2003.

37. Pietrafesa, L.J., L.Xie, E. Buckley, M. Fletcher. 2003: Climate Variability and the Implications for Coastal & Estuary Impacts and Emerging Capabilities, (Invited) Estuarine Research Federation, Seattle, WA, 18 September, 2003.
38. Pietrafesa, L.J. and L. Xie. 2003: Climate and Weather Impacts on Society and the Environment (CWISE) and Interoperability with Observing Systems. (Invited) S.E Coastal Climatology Conference. Charleston, S.C. October 21, 2003.
39. Pietrafesa, L.J., L. Xie, M. Fletcher, E. Buckley, 2003: Caro-COOPS and Applications to Fisheries Issues. S.E. Fisheries Workshop (Invited). Charleston, S.C. October 2, 2003.
40. Xie, L., L.J. Pietrafesa, M. Peng, S. Bao, H. Liu, J. Epps, X. Liu, 2003: Coastal, Estuary and Inland Flooding via Storm Surge and Inundation; Model and Observations. (Invited) 58th International Hurricane Conference. March 03, 2004.
41. Xie, L., T. Yan, J.M. Morrison, L.J. Pietrafesa, 2003: "The climatology and interannual variability of Atlantic hurricane tracks", 1<sup>st</sup> CWISE Topical Meeting, National Climatic Data Center, Asheville, NC, December 19, 2003.
42. Pietrafesa, L.J. and L. Xie, 2003: The potential impacts of climate variability and change on the North Carolina coast. Duke Climate Series, Duke Campus, July 1, 2003.
43. Pietrafesa, L.J. and L. Xie. Enabling CMAST via coastal modeling and observations; what exists, what is needed and what the benefits are to a coastal county. Carteret Community Advisory Council. Morehead City, N.C. April 23, 2003.
44. Xie, L., L.J. Pietrafesa, M. Peng, S. Bao, 2003: "CMEPS: The North Carolina State University Coastal and Estuary Marine & Environmental Prediction System", invited presentation at the National Symposium of Mitigating Severe Weather Impacts in Urban Areas, April 15-17, Huston, TX.
45. Xie, L., L.J. Pietrafesa, 2003: "The perfect flood: coupling between inland and coastal flooding during hurricanes Dennis and Floyd", invited presentation at the 2003 AMS Conference on the Inland Effects of Tropical Weather, May 11-13, Raleigh, NC.
46. Xie, L., M. Peng, and L.J. Pietrafesa, 2002: "Effect of the Gulf Stream on landfalling hurricanes", 25<sup>th</sup> Conference on hurricanes and tropical meteorology, 29 April-3 May 2002, San Diego, California. (attended after last year's annual review).
47. Pietrafesa, L.Xie, M. Peng, S. Bao, C. Guan, 2003: "Coastal, Estuary and Inland Flooding" Invited talk at the NOAA Coastal Services Center, 19 Feb, 2003.
48. Pietrafesa, L.Xie, M. Peng, S. Bao, C. Guan, 2003: Ocean-Atmospheric Interactions During the Passages of Cyclones on the Coasts of the Carolinas, 27 Jan, 2003, NOAA Sea Grant/NOS SEACOS Conference.
49. Pietrafesa, L.Xie, M. Peng, S. Bao, C. Guan, E. Buckley, M. Fletcher, M.Moss, 2003: Observational & Modeling Networks in the South Atlantic Bight, 28 Jan, 2003, NOAA Sea Grant/NOS SEACOS Conference.
50. Pietrafesa, L.Xie, M. Peng, S. Bao, C., Guan, D.Dickey, 2003: NC State University Flood Prediction System, Sustainable Development Conference, 5 June, 2003.
51. Bright, R., L. Xie, and L.J. Pietrafesa, 2002: Climatological study of the Gulf Stream's impact on tropical cyclone intensity. 25<sup>th</sup> Conference on Hurricanes and Tropical Meteorology, American Meteorological Society, April 29-May 3, 2002, San Diego, CA.
52. Xu, X., Z. Zhao, L. Xie, 2002: Spring dust storms in 2000 and projections for 21<sup>st</sup> century", invited presentation at the Workshop on Dust storms and their effects on human health, November 25-27, 2002, Raleigh, NC.
53. Xie, L., S. Bao, L.J., Pietrafesa, R. Bright, 2001: Impact of the Gulf Stream on hurricane intensity change. National Hurricane Conference, Miami, FL., 2001.
54. Xie, L., L.J., Pietrafesa, K. Wu, 2001: Wind-driven coastal ocean circulation simulation by using a coupled wave-current coupled modeling system. The Oceanographic Society 2001 Annual Meeting.

55. Pietrafesa, L.J., L. Xie, G. Weatherly, and D. DeMaster, 2001: Heat, Salt, and water mass fluxes in the Ocean Margin's Program region. ASLO 2001.
56. Bulusu, Subrahmanyam, V. Manhnani, J.J. O'Brien, J. Morrison, and L. Xie, 2001: A study of the Indian Ocean dipole mode dynamics using satellite observations and MICOM simulations. 11<sup>th</sup> Conference on Interactions of the sea and the atmosphere, 14-18 May 2001, San Diego, CA, American Meteorological Society.
57. Xie, L., 2001: Mesoscale air-sea interactions: concepts and examples. ONR Asia Marine Science Forum, June 2001, Qingdao, China.
58. Manghnani, V., L. Xie, and J.M. Morrison, 2000: Seasonal and interannual variability in the Indian Ocean. Proceedings, 2000 Layered Ocean Model Workshop, Miami, Florida.
59. Xie, L., K. Wu, and L.J. Pietrafesa, 2000: Empirical modes of landfalling tropical cyclones in North Carolina. Preprints, 24<sup>th</sup> Conference on Hurricanes and Tropical Meteorology. American Meteorological Society, 29 May-2 June, 2000, Fort Lauderdale, FL, 224-225.
60. Xie, L., and L. J. Pietrafesa, K. Wu, and C. Zhang, 1999: The North Carolina Coastal Marine Environment Prediction System (CMEPS). Preprints, 6th International Conference on Estuarine and Coastal Modeling. 3-5 November 1999. New Orleans, Louisiana.
61. Xie, L., C. Zhang, L. J. Pietrafesa, A. Xiu, and K.Wu, 1999: Upper ocean response to moving tropical cyclones in the presence of large sea surface temperature gradient and complex topography. Preprints, 23rd Conference on Hurricanes and Tropical Meteorology. American Meteorological Society. 10-15 February 1999. Dallas, Texas. 1047-1051.
62. Song, Y., L. Xie, and S. Raman, 1999: Observations and simulations of boundary layer processes in mesoscale convective systems over the western Pacific warm pool. Preprints, 23rd Conference on Hurricanes and Tropical Meteorology. American Meteorological Society. 10-15 February 1999. Dallas Texas. 149.
63. Xie, L., John Morrison and X. Liu, 1999: Sensitivity of Pacific SST to atmospheric forcing parameterization in MICOM. Proceedings, 1999 Layered Ocean Model User's Workshop, February 22-24. Miami, Florida.
64. Pietrafesa, L.J., L. Xie, N.E. Huang, J.M. Miller, and W.J. Showers, 1999: Environmental factors and fish kills: causal, correlative or neither? AGU Spring Meeting, May 29-June 4, 1999, Boston, MA.
65. Pietrafesa, L.J., L. Xie, E. Bohm and G. Weatherly, 1999: Tracking outwelling estuarine plumes: a case study. AGU Spring meeting, May 25-29, Boston, MA.
66. Song, Y., L. Xie, F. Semazi, 1999: A numerical study of South China Sea summer monsoon using NCAR Regional Climate Model. AGU Spring Meeting, May 25-29, Boston, MA.
67. Xie, L., L.J. Pietrafesa, K. Wu, 1999: A numerical study of wave-current interactions in the coastal zone. Proceedings, The 1999 Oceanographic Society Annual Meeting. Reno, Nevada.
68. Xie, L., L.J. Pietrafesa, C. Zhang, and K. Wu, 1998: The North Carolina Regional Earth System Model. Proceedings, Office of Naval Research Workshop on SINO-U.S. Cooperation in Marine Science and Technology. August 3-6, Qingdao, China.
69. Pietrafesa, L.J. and L. Xie, 1998: Mass Flux events on the continental shelf off the U.S. East Coast. Proceedings of Workshop on SINO-U.S. Cooperation in Marine Science and Technology. Office of Naval Research. August 3-6, Qingdao, China.
70. Xie, L., 1999: The NCSU Coastal System Model: a status report. 1999 UNC-Duke Marine Science Meeting. Morehead City.
71. Xie, Lian, L.J. Pietrafesa and E. Bohn, 1997: Interaction between intense coastal storms and Gulf Stream off the Carolina coast. Proceedings, IAMAS-IAPSO 1997, Melbourne, Australia.
72. Xie, Lian, 1997: Computer modeling and visualization of coupled atmosphere-ocean systems. IAMAS-IAPSO 1997, Melbourne, Australia.
73. Pietrafesa, L.J., L. Xie and X. Li, 1997: Mass flux events north of Cape Hatteras. Proceedings, IAMAS-IAPSO 1997, Melbourne, Australia.

74. Xie, Lian and L.J. Pietrafesa, 1997: Gulf Stream-hurricane interactions off North Carolina Coast. Preprints, 22nd Conference on Hurricanes and Tropical Meteorology, May 19-23, Ft. Collins, Colorado, American Meteorological Society, 429-430.
75. Schneider, D., Lian Xie and S. Raman, 1997: An investigation of mesoscale features in hurricane Opal after landfall. Preprints, 22nd Conference on Hurricanes and Tropical Meteorology, May 19-23, Ft. Collins, Colorado, American Meteorological Society, 119-120.
76. Liu, X., Lian Xie and John Morrison, 1997: Sensitivity of equatorial Pacific SST to atmospheric forcing parameterization in a global isopycnic ocean model. Preprints, 22nd Conference on Hurricanes and Tropical Meteorology, May 19-23, Ft. Collins, Colorado, American Meteorological Society, 337-338.
77. Neuherz, R., Lian Xie, L.J. Pietrafesa and K. Keeter, 1997: Forecasting the storm surge in the western Pamlico Sound induced by hurricanes during the 1996 hurricane season. Preprints, 22nd Conference on Hurricanes and Tropical Meteorology, May 19-23, Ft. Collins, Colorado, American Meteorological Society, 649-650.
78. Jin, H., Sethu Raman and Lian Xie, 1996: A numerical Study of the effect of cross-shelf SST gradient on the Carolina coastal frontogenesis. Preprints, Conference on Coastal Oceanic and Atmospheric Prediction, American Meteorological Society, 225-228.
79. Xie, Lian and Y.-L. Lin, 1996: Responses of stratified airflow to multiple low-level heat sources with application to the formation of coastal mesobeta-scale vortices and fronts. Preprints, Conference on Coastal Oceanic and Atmospheric Prediction, American Meteorological Society, 229-236.
80. Xie, Lian and Richard A. Neuherz, 1995: The North Carolina State sound basin model for predicting water level on Albemarle and Pamlico sounds. Training Symposium for Operational Forecasters in the Carolinas and Virginia. November 6-8, 1995, Raleigh, North Carolina.
81. Xie, Lian, L.J. Pietrafesa, and S. Raman, 1995: Variability of continental shelf circulation induced by air-sea interaction and offshore flow. IAPSO, August 12-18, Hawaii.
82. Xie, Lian, F. Semazzi and S. Raman, 1995: Numerical simulation of monsoon variability over East Africa, India and South China Sea. Proceedings of the 18th Congress of Pacific Science Association, June 5-11, 1995, Beijing, China.
83. Pietrafesa, L. J., Gerald S. Janowitz, Lian Xie and G.Q. Lin, 1995: Modeling the flooding around the Pamlico-Albemarle Sounds caused by hurricanes. Part I: Model development and testing. 21st Conference on Hurricanes and Tropical Meteorology, April, 1995, Miami, Florida.
84. Xie, Lian and L. J. Pietrafesa, 1995: Modeling the flooding around the Pamlico-Albemarle Sounds caused by hurricanes. Part II: Predicting the flooding caused by Emily. Preprints, 21st Conference on Hurricanes and Tropical Meteorology, April, 1995, Miami, Florida.
85. Xie, Lian, L. J. Pietrafesa and Sethu Raman, 1994: Interaction between low-level jet and sea surface temperature gradient in the Carolina Capes. Preprint, 2nd international Conference on Air-sea Interaction and on Meteorology and Oceanography of the Coastal Zone, American Meteorological Society, 155-156.
86. Xie, Lian and Y.L. Lin, 1994: Asymmetry of surface wind field forced by an elongated surface heat source. Preprint, 6th Conference on Mesoscale Meteorology, American Meteorological Society, 274-277.
87. Pietrafesa, L. J. and Lian Xie, 1994: Linkages between Estuaries and coastal waters on synoptic scales. SECOR, 1994, Charleston, South Carolina.
88. Xie, Lian, L. J. Pietrafesa and S. Raman, 1994: A mechanism for coastal frontogenesis in the Carolina Capes: concepts, evidence and simple model results. Ocean Sciences Meeting, February 21-25, 1994, San Diego, California.
89. Pietrafesa, L. J. and Lian Xie, Linkages between Estuaries and coastal waters on synoptic scales. SECOR, 1994, Charleston, South Carolina.
90. Pietrafesa, L. J. and Lian Xie, Wind-induced SST variability over the Carolina Shelf. Ocean Sciences Meeting, February 21-25, 1994, San Diego, California.

91. Xie, Lian, L. J. Pietrafesa and Sethu Raman, Evidence and a mechanism of synoptic-time scale air-sea interaction off the east coast. AGU Spring Meeting. May 23-27, 1994, Baltimore, Maryland.
92. Xie, Lian, R. Bleck and X. Cheng, 1994: An isopycnic-coordinate ocean model for the Florida current. 1994 MICOM Workshop, January 19-22, Miami, Florida.
93. Xie, Lian and Rainer Bleck, 1991: A limited area step-mountain coordinate model for flow around the Tibetan Plateau. Preprints, 1st International Conference on Winter Storms, January, 1991. New Orleans, American Meteorological Society.

**Research Grants (1997-2007) (Most Recent First)**

#	CO-PIs	Project Title	Agency	Amount	Period
1	L. Xie	Regional storm surge and inundation model testbed	NOAA	\$270,000	01/01/2008 – 12/31/2010
2	L. Xie	Development of a regional model for Mars atmosphere	NIA	\$175,000	08/15/2007 – 09/15/2008
3	Lackmann, G. Semazzi, F. Aiyyer, A. Xie, L.	High-Resolution Modeling to Assess Tropical Cyclone Activity in Future Climate Regimes	DOE	\$600,000	08/01/2007 – 07/31/2010
4	Cudaback, C. Xie, L. Eggleston, D.	Oyster Dispersal and Meta-Population Dynamics in Pamlico Sound, Part I: Larval Transport	SeaGrant	\$128,585	02/01/2006 – 01/31/2009
5	Fuentes M., Reich B., and L. Xie	Multivariate Space-time Models and Methods to Combine Large Disparate Spatial Data and Numerical Models	NSF	\$260,000	05/15/2007- 05/15/2010
6	Lackmann, G., L. Xie, M. Parker	Improving Understanding and Prediction of Warm Season Precipitation Systems in the Southeastern and Mid-Atlantic Regions	NOAA	\$375,000	06/01/07 – 05/31/10
7	Semazzi F., L. Xie, P. Liu	NOAA Interdisciplinary Scientific Environmental Technology(ISET) Cooperative Research and Education Center	NOAA	\$1,000,000	09/01/06 – 08/31/11
8	Pietrafesa, Xie	Climate and Weather Impacts on Society and the Environment (CWISE)	NOAA	1.675 million	09/01/03 – 08/31/07
9	Xie, L.	Intercontinental Transport of Air Pollution	EPA	115,000	07/01/02 – 07/31/06
10	Pietrafesa, Xie	Carolinas Coastal Ocean Observing and Prediction	NOAA	5 million	06/01/02 – 05/31/07

		System			
11	Xie, Pietrafesa	Coastal Ocean Research and Monitoring Program (CORMP)	NOAA	2.5 million	06/01/02 – 05/31/07
12	Semazzi, Xie	Variability of the eastern Africa regional coupled climate system.	NSF	555,875	09/01/01 – 08/31/04
13	Semazzi, Xie	Predicting the variability of the eastern Africa regional coupled climate system.	NSF	560,000	09/01/04 – 08/31/07
14	Xie, Kaplan, Pietrafesa, Raman	Inland flooding due to hurricanes	NOAA/ NWS	41,000	01/01/2004 – 12/31/2005
15	Lackmann, Riordan, Xie	Improving cold season quantitative precipitation forecasting in the Carolinas and Virginia	NOAA	375,000	07/01/03 – 06/30/06
16	Pietrafesa, Xie, Dickey	Determination of a recruitment index	NOAA	75,000	09/01/02 – 08/31/04
17	Morrison, Xie, Kamykowsky	Connectivity and Upwelling Dynamics In the Galapagos Marine Reserve (GMR)	NASA	1million	05/01/04 – 04/30/07
18	Lin, Xie	Development of a sediment transport model for Chesapeake Bay	VIMS	10,000	3/01/04 – 08/01/06
19	Dickey, Xie, Pietrafesa	Project IFLOW – Storm surge model integration component	Sea Grant	100,000	08/01/03 – 07/31/06
20	Xie	Support for international workshop on dust storms and their effects on human health	USDA	5,000	10/01/02 – 07/31/03
21	Pietrafesa, Xie	A Risk Assessment Tool: Predicting Coastal Flooding for Operational Purposes	NOAA	465,000	01/01/01 – 12/31/03
22	Morrison, Xie	WOCE AIMS: Northern Indian Ocean Data Analysis and Synthesis	NSF	400,000	03/01/00 – 12/31/03
23	Riordan, Lackmann, Xie	Improving forecasts of topographically-forced weather systems in the Carolinas and Virginia	NOAA	375,000	05/01/00 – 04/30/03
24	Xie	Workshop on Dust Storms and Their Effects on Human Health	NASA	10,000	11/01/02 – 12/31/02
25	Xie	Workshop on Dust Storms and Their Effects on Human	USDA	5,000	11/1/02 –

		Health			7/31/03
26	Xie	Workshop on Dust Storms and Their Effects on Human Health	NOAA	2,500	11/01/02 – 07/31/03
27	Pietrafesa, DeMaster, Xie	Ocean Margins Program data analysis and synthesis	NSF	92,624	06/01/98 – 05/31/01
28	Raman, Xie	A numerical study of interactions between mesoscale convective systems and ocean mixed layer in the Western Pacific Warm Pool	NSF	340,679	04/01/97 – 12/31/01
29	Wolcott, Pietrafesa, Xie	Real-time data for critical decisions about NC's coastal waters: "proof of concept"	Z. Smith Reynolds	64,896	06/01/97 – 12/31/01

### **COURSES TAUGHT**

MEA421: ATMOSPHERIC DYNAMICS I

MEA421L: ATMOSPHERIC DYNAMICS I LAB

MEA467: MARINE METEOROLOGY

MEA726: AIR-SEA INTERACTION

MEA593: TROPICAL METEOROLOGY

MEA593: ATMOSPHERIC GENERAL CIRCULATION

MEA312: ATMOSPHERIC THERMODYNAMICS

### **OUTREACH AND COMMUNITY SERVICE ACTIVITIES**

President (volunteer), North Carolina China Center

Board (volunteer), Chinese Association for Science and Technology-North Carolina Chapter

Past Principal (volunteer), Raleigh Academy of Chinese Language

Past Board Member (volunteer), Chinese American Friendship Association at the Triangle Area.

Advisor, NCSU Chinese Student and Scholar's friendship Association