

## Curriculum Vitae (as of 9/6/2007)

Yong Wang

Department of Geography, East Carolina University, Greenville, NC 27858. USA.

Tel (252) 328-1043, Fax (252) 328-6054, and E-mail: wangy@ecu.edu

### Research interest in and study of

Responses and variations of shorelines and coastal wetlands to changes of environments and climate, and to sea level rise.

Landcover types and landuse changes caused by nature and human disturbance.

Applications of remotely sensed data to earth sciences.

Geographic information sciences and analyses.

Retrieving forest physical parameters by model inversion.

Image processing and analysis.

Microwave canopy backscatter numerical modeling.

### Education

Ph.D. (12/92)	Geography, University of California at Santa Barbara (UCSB), USA.
M.A. (06/89)	Geography, UCSB
B.S. (07/82)	Electrical engineering, Northwestern Polytechnic Univ., Xian, China.

### Employment

08/2000 - present	Associate Professor, Department of Geography, East Carolina University (ECU).
10/2000 – 06/2005	Director, Center for Geographic Information Science, ECU.
01/2000 – 08/2001	Director, Graduate Study in Geography, Dept. of Geography, ECU.
08/1994 – 07/2000	Assistant Professor, Department of Geography, ECU.
Summers of 95, 96, & 97	Visiting Scientist, Institute for Computational Earth System Science (ICESS), UCSB.
12/1992 – 08/94	Post-Doctoral Researcher, ICESS, UCSB.
10/1992 – 11/1992 & 07/1991 – 08/1991	Visiting Scientist, Radar Science and Engineering Group, Jet Propulsion Laboratory (JPL), NASA.
09/1987 – 11/1992	Graduate Student Researcher and Teaching Assistant, Department of Geography, UCSB.
09/1986 – 06/1987	Visiting Scholar, Department of Electrical and Computer Engineering, UCSB.
07/1982 – 08/1986	Electrical Engineer, Radar Science Group, Chengdu Aircraft Corp., China.

### Other professional positions

Adjunct professor, Wuhan University, Wuhan, Hubei Province, China, since 1999.

Adjunct professor, Chengdu Institute of Technology, Chengdu, Sichuan Province, China. 1999-2003.

Adjunct professor, Institute of Remote Sensing Application, the Chinese Academy of Sciences, Beijing, China. 1999-2003.

Advisor for the Development Department of the New and High Technology, Ministry of the National Science and Technology of China, Beijing, China. 1991-2003.

### **Award**

College Research Award for Outstanding Research and Scholarly Achievement, *College of Arts and Sciences*, East Carolina University, 1997-1998.

### **Major funded/supported research projects**

*Principal investigator (PI)* – Mapping trends in North Carolina’s estuarine shorelines and accompanying infrastructure and human vulnerabilities. NC Sea Grant. 2/1/2008 – 1/31/2010. Selected for a submission of a full proposal after the pre-proposal evaluation by NC SeaGrant7. Pending.

*Co-Principal investigator (Co-PI)*, *Modeling and model-inversion of the surface parameters using polarimetric and interferometric techniques and data*. With colleagues in the Wuhan University, China. Chinese National Science Foundation, Pending.

*Co-PI*, *Inversion of radar backscatter model and radar target decomposition*. With colleagues in the Wuhan University, China. Ministry of the Information and Technology, China. Pending.

*PI* - The estimation of above-ground biomass of coniferous forests on the floodplain of North Carolina using remotely sensed data sets: the opportunity and challenge to assess the biomass of southern yellow pine forests in the southeast of U.S., funded by ECU. Summer 2006.

*Co-PI* – Using LIDAR to monitor changes of barrier island systems, funded by North Carolina Seagrant. 2/1/2006 – 1/31/2008.

*PI* – NC national guard facilities data development, funded by Mary Jackson, 1/1/2005-12/31/2005.

*PI* - Investigation of responses of North Carolina shorelines and coastal wetlands to sea level rise, funded by JAXA of Japan, data only, 01/01/01 - 12/31/07.

*PI* - Landuse changes and land availability caused by inundation and human resettlement in the Three Gorges Dam region of China, funded by JAXA of Japan, data only, 01/01/01 - 12/31/07.

*Co-PI* - Documenting flooding extent due to hurricane Floyd using Landsat 7 TM satellite imagery, funded by the Natural Hazards Research and Applications Information Center, 10/01/99 - 09/30/00.

*PI* - Monitoring the effects of fires in boreal forests using imaging radars, funded by NASA, 05/01/95 -09/30/98.

*Co-PI* - Studies of the Transmission and Imaging Mechanism of Remotely Sensed Data from the Earth Surface: Study III - studies of the transmission and imaging mechanism of microwave remote sensing data from the Earth surface, funded by the National Science Foundation, The People's Republic of China, 01/01/94 - 12/31/96.

- Co-PI.* - Studying the effects of fires on the patterns of carbon storage and release in North American boreal forests using ERS SAR data, data only, funded by European Space Agency (ESA), 01/01/95-12/31/98.
- PI.* - Retrieving forest stand parameters from SAR measurements by a neural network trained with a canopy backscatter model, funded by California Space Institute, 7/1/93-6/30/94.
- PI.* - Study of the use of ERS-1 image data in seasonal forest ecosystem studies, funded by NASA/JPL, 11/17/92 - 5/15/94.
- PI.* - Geographic information system for fusion and analysis of high-resolution remote sensing and ground truth data, funded by NASA/JPL, 11/20/91-11/19/94.

### **Refereed journal article (downloadable in pdf)**

***Number in parenthesis is the # of times that the paper has been cited. The search was done using the WebScience and ScienceDirect. The last accessed date was on 08/22/2007. The total number of citations for all 31 articles is 281. The averaged number of citations is 9.1 per article (281 divided by 31), and 0.6 per article and per year (9.1 divided by 15 years, 1993-2007).***

31. Wang, Y., and Allen, T., 2007, Initial observation of North Carolina shoreline changes using Japanese ALOS PALSAR and JERS-1 SAR data, *International Journal of Remote Sensing*, 30 p. In Press.
30. Wang, Y., Sun, G., Liao, M., and Gong, J., 2007, [Estimation of the increase of the inundation extent and water volume of the Danjiangkou Reservoir, Hanshui, China using the SRTM DEM and GLAS Data](#), *International Journal of Remote Sensing*, 15 p.
29. Wang, Y., and Wade, S. E., 2007, Comparisons of Multiple Digital Elevation Models: the Randleman Reservoir, North Carolina. *Southeastern Geographers*, 15 p. In Press.
28. Gares, P. A., Wang, Y., and White, S. A., 2006, [Using LIDAR to monitor a beach nourishment project at Wrightsville Beach, North Carolina, USA](#), *Journal of Coastal Research*, 22(5): 1206-1219.
27. Wang, Y., Liao, M., Sun, G., and Gong, J., 2005, [Analysis of the storage capacity, length, and total area, and inundated area of the Three Gorges Reservoir, China using the SRTM DEM Data](#), *International Journal of Remote Sensing*, 26(18), 4001-4012.
26. Wang, Y. and Zheng, T., 2005, [Comparison of digital elevation models and understanding of their impact on the flood extent mapping on a coastal floodplain of North Carolina](#), *Natural Hazards Review*, 6(1), 34-40.
25. Aycock, W. C. and Wang, Y., 2004, [Comparison of the new digital flood insurance rate maps \(DFIRMs\) with the existing FIRMs, Wilson, North Carolina](#), *Southeastern Geographer*, 44(2), 159-169.
24. (1) Wang, Y., 2004, [Seasonal change in the extent of inundation on floodplains detected by JERS-1 Synthetic Aperture Radar data](#), *International Journal of Remote Sensing*, 25(13), 2497-2508.
23. (2) Wang, Y., 2004, [Using Landsat 7 TM data acquired days after a flood event to delineate the maximum flood on a coastal floodplain](#), *International Journal of Remote Sensing*, 25(5) 959-974.
22. Zhang, L., Liao, M., Wang, Y., Lu, L., and Wang, Y., 2004, [Robust approach to the MAD change detection method, Remote Sensing for Environmental Monitoring](#), GIS Applications, and Geology IV. Edited by Ehlers, Manfred; Posa, Francesco; Kaufmann,

- Hermann J.; Michel, Ulrich; De Carolis, Giacomo. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE)*, Volume 5574, pp. 184-193.  
DOI:10.1117/12.565389.
21. Zheng, T. and Wang, Y., 2003, [An adaptive filter to reduce SAR speckles: a case study of mapping an inundation extent on the North Carolina coastal floodplain using the JERS-1 SAR data](#), *The North Carolina Geographer*, 11, 33-44.
  20. (9) White, S. A. and Wang, Y. 2003, [Utilizing DEMs derived from LIDAR data to analyze morphologic change in the North Carolina coastline](#), *Remote Sensing of Environment*, 85(1), 39-47.
  19. (11) Wang, Y., Colby, J. D., and Mulcahy, K. A., 2002, [An efficient method for mapping flood extent in a coastal floodplain by integrating Landsat TM and DEM data](#), *International Journal of Remote Sensing*, 23(18), 3681-3696.
  18. Wang, Y., 2002, [Mapping extent of floods: what we have learned and how we can do better](#), *Natural Hazards Review*, 3(2), 68-73.
  17. Wang, Y., and Wade, S. E., 2001, [Using digital spatial data sets to study the impact of reservoir construction on local environment and community](#), *The North Carolina Geographer*, 9, 1-12.
  16. (8) Wang, Y. Kasischke, E. S., Bourgeau-Chavez, L. L., O'Neill, K. P., and French, N. H. F., 2000, [Assessing the influence of vegetation cover on soil-moisture signatures in fire-disturbed boreal forests in interior Alaska: modeled results](#), *International Journal of Remote Sensing*, 21(4), 689-708.
  15. (4) Colby, J. D., Mulcahy, K. A., and Wang, Y., 2000, [Modeling flooding extent from Hurricane Floyd in the coastal plains of North Carolina](#), *Global Environmental Change Part B: Environmental Hazards*, 2(4), 157-168.
  14. (10) French, N. H. F., Bourgeau-Chavez, L. L., Wang, Y., and Kasischke, E. S., 1999, [Initial observations of Radarsat imagery of fire-disturbed sites in interior Alaska](#), *Remote Sensing of Environment*, 68(1), 89-94.
  13. (4) Wang, Y., Day, J. J., and Davis, F., 1998, [Sensitivity of modeled C- and L-band SAR backscatter to soil surface roughness and moisture in loblolly pine forest](#), *Remote Sensing of Environment*, 66(3), 331-342.
  12. Wang, Y., Paris, J. F., and Davis, F. W., 1998, [Inclusion of a simple multiple scattering model into a microwave canopy backscatter model](#), *Remote Sensing of Environment*, 63(2), 101-111.
  11. Melack, J. M. and Wang, Y., 1998, [Delineation of flooded area and flooded vegetation in Balbina Reservoir \(Amazonas, Brazil\) with synthetic aperture radar](#), *Verhandlungen Internationale Vereinigung fur Limnologie*, 26, 2374-2377.
  10. (7) Wang, Y., and Davis, F. W., 1997, [Decomposition of polarimetric synthetic aperture radar backscatter from upland and flooded forests](#), *International Journal of Remote Sensing*, 18(6), 1319-1332.
  9. (7) Wang, Y., and Dong, D., 1997, [Retrieving forest stand parameters from SAR backscatter data using a neural network trained by a canopy backscatter model](#), *International Journal of Remote Sensing*, 18(4), 981-989.
  8. (47) Wang, Y., Hess, L. L., Filoso, S., and Melack, J. M., 1995, [Understanding the radar backscatter from flooded and nonflooded Amazonian forests: results from canopy backscatter modeling](#), *Remote Sensing of Environment*, 54(3), 324-332.

7. (14) Wang, Y., Davis, F. W., Melack, J. M., Kasischke, E. S., and Christensen, N. L., Jr., 1995, [The effects of changes in forest biomass on radar backscatter from tree canopies](#), *International Journal of Remote Sensing*, 16(3), 503-513.
6. (88) Hess, L. L., Melack, J. M., Filoso, S., and Wang, Y., 1995, [Realtime mapping of inundation on the Amazon floodplain with the SIR-C/X-SAR synthetic aperture radar](#), *IEEE Transactions on Geoscience and Remote Sensing*, 33(4), 896-904.
5. (24) Wang, Y., Kasischke, E. S., Melack, J. M., Davis, F. W., and Christensen, N. L., Jr., 1994, [The effects of changes in loblolly pine biomass and soil moisture on ERS-1 SAR backscatter](#), *Remote Sensing of Environment*, 49, 25-31.
4. (20) Wang, Y., Day, J. L., and Sun, G., 1993, [Santa Barbara microwave backscattering model for woodlands](#), *International Journal of Remote Sensing*, 14(8), 1477-1493.
3. (14) Wang, Y., Davis, F. W., and Melack, J. M., 1993, [Simulated and observed backscatter at P-, L-, and C- bands from ponderosa pine stands](#), *IEEE Transactions on Geoscience and Remote Sensing*, 31(4), 871-879.
2. (8) Wang, Y., and Imhoff, M. L., 1993, [Simulated and observed L-HH radar backscatter from tropical mangrove forests](#), *International Journal of Remote Sensing*, 14(15), 2819-2828.
1. (3) Wang, Y., Day, J. L., Davis, F. W., and Melack, J. M., 1993, [Modeling L-band radar backscatter of Alaskan boreal forest](#), *IEEE Transactions on Geoscience and Remote Sensing*, 31(6), 1146-1154.

#### **Refereed book chapter**

Wang, Y., Colby, J. D., and Mulcahy, K., 2001, A new method for mapping the flood extent in Tar River basin, Facing Our Future: Hurricane Floyd and Recovery in the Coastal Plain, 1<sup>st</sup> Edition (ed. by J. R. Maiolo, J. C. Whitehead, M. McGee, L. King, J. Johnson, and H. Stone) Coastal Carolina Press, NC. 173-180.

#### **Book review**

Kondratyev, K. Ya., *Multidimensional Global Change*, New York: John Wiley & Sons, in association with Praxis Publishing, Chichester, U.K., 1998. A book review in *the Annals of the Association of American Geographers*, 90, 419-420, June 2000.

#### **Refereed journal article in review**

Liao, M., Wang, C., Wang, Y., and Jiang, L., 2007, Using SAR image to detect ships from sea clutter, *IEEE Transactions on Geoscience and Remote Sensing*, 22 p. Revised on 7/20/2007.

Aycock, W. and Wang, Y., 2007, Study of citizen drainage complaints using the 100-year flood zones of the flood maps and stream buffers outside the flood zones, Wilson City, North Carolina. *Natural Hazards Review*, 30 p.

#### **Non-referred conference papers, posters, abstracts, and presentations**

43. Wang, Y. and Allen, T., 2007, Initial observation of North Carolina shoreline changes using Japanese ALOS PALSAR and JERS-1 SAR data. Atlantic Estuarine Research Society

- and Southeastern Estuarine Research Society, Spring 2007 Meeting. Held at North Carolina Aquarium at Pine Knoll Shores, NC. March 15-17, 2007. An abstract published.
42. Wang, Y. and Zhang, T., 2007, Modeling flood extent on coastal plain using a hydraulic model: a simple alternative to the standard HEC-RAS model. Coastal GeoTools 2007. Held at Myrtle Beach, SC. March 5-8, 2007. An abstract published.
  41. Wang, Y. and Wade, S. E., 2006, Comparison of multiple digital elevation models: the Randleman Reservoir, NC. The SEDAAG Annual Meeting of 2006. Held at Morgantown, WV. Nov. 19-21, 2006.
  40. Aycock, W. C. and Wang, Y., 2005, Study of citizen drainage complaints using the 100-year flood zones of the flood maps and stream buffers outside the flood zones. The 60<sup>th</sup> Annual Meeting of the Southeastern Division of the Association of American Geographers. West Palm Beach, Florida. Nov. 20-22, 2005.
  39. Wang, Y., 2005, Analysis of the water volume, length, total area, and inundated area of the Three Gorges Reservoir, Changjiang, China using the SRTM DEM and river gauge data. An invited presentation at the National Lab for Information Engineering in Surveying, Mapping & Remote Sensing, Wuhan University, Wuhan, Hubei, China. July 18, 2005.
  38. Wang, Y., 2005, Estimation of the increase of the inundation extent and water volume of the Danjiangkou Reservoir, Hanshui, China using the SRTM DEM and GLAS Data. An invited presentation at the National Lab for Information Engineering in Surveying, Mapping & Remote Sensing, Wuhan University, Wuhan, Hubei, China. July 18, 2005.
  37. Wang, Y., 2005, The Three Gorges Dam Construction and Its Implications for Today's Chinese Economy. An invited presentation at the South Atlantic States Association for Asian and African Studies (SASASAAS) Spring Meeting. Held at UNC, Pembroke, NC. March 18-19, 2005.
  36. Wang, Y., 2004, Analysis of the Storage Capacity, Length, and the Total and Inundated Areas of the Three Gorges Reservoir by DEM data, A presentation at the 2<sup>nd</sup> ALOS PI Workshop and Final Meeting of the JERS-1 Research Invitation (RI) Program. Held at Hyogo, Japan, January 19-23, 2004.
  35. Wang, Y., 2004, Using JERS-1 SRA Data to Map Temporal Status and Change of the Extent of Inundation on the Coastal plain of North Carolina, U.S.A. A presentation at the 2<sup>nd</sup> ALOS PI Workshop and Final Meeting of the JERS-1 Research Invitation (RI) Program. Held at Hyogo, Japan, January 19-23, 2004.
  34. Wang, Y., 2003, Comparison of DEMs and understanding their impact on the extent of inundation on a floodplain. *the 58<sup>th</sup> Annual Meeting of the Southeastern Division of the Association of American Geographers*. A presentation, and one page abstract published. Held at Charlotte, North Carolina, Nov. 23-25.
  33. Wang, Y., 2003, Comparison of LIDAR and USGS DEMs and understanding their impact on the inundation extent mapping on a floodplain of eastern North Carolina. An invited presentation at the *North Carolina Chapter of the American Society of Photogrammetry and Remote Sensing, 2003 Fall Meeting*. Held at Greensboro, North Carolina. Oct. 23-24.
  32. Wang, Y., 2003, Seasonal change of inundation extent on floodplains detected by JERS-1 SAR data, *North Carolina GIS Conference*. An invited presentation. *Held at Winston-Salem*. February. 20-21, 2003.
  31. Gares, P. A., Wang, Y., and White, S. A., 2003, Using LIDAR to monitor a beach nourishment project at Wrightsville Beach, NC, *the 99<sup>th</sup> Annual Meeting of the*

- Association of American Geographers*. A presentation and an abstract published on a conference CD. Held at New Orleans, Louisiana, March 5-8, 2003.
30. Gares, P. A., Wang, Y., and White, S. A., 2003, Using LIDAR to monitor a beach nourishment project at Wrightsville Beach, NC, *Southeast Coastal Ocean Science Conference and Workshop*. A poster presentation. Held at Charleston, South Carolina, January 27-31, 2003.
  29. Wang, Y., White, S. A., and Zheng, T., 2003, Seasonal changes of inundation extent on coastal plain of North Carolina detected by using JERS-1 SAR data, *Coastal GeoTools03*. A presentation, and an abstract published on a conference CD. Held at Charleston, South Carolina, Jan. 6-9, 2003.
  28. Wang, Y., White, S. A., and Zheng, T., 2002, Using JERS-1 SAR data to map temporal change of inundation extent: a case study on the floodplains of North Carolina, *the 57<sup>th</sup> Annual Meeting of the Southeastern Division of the Association of American Geographers*. A presentation, and an abstract published on pp 41. Held at Richmond, Virginia, Nov. 24-26.
  27. White, S. A., and Wang, Y., 2002, Using DEMs Derived From LIDAR Data to Investigate Geomorphic Changes of Barrier Islands Along the North Carolina Coastline, *Proceeding of the Seventh International Conference on Remote Sensing for Marine and Coastal Environments*. A presentation and a full paper published in a conference CD, 10 p. Held at Miami, Florida. May 20-22, 2002.
  26. Wang, Y., 2002, Using Landsat 7 TM data acquired days after a flood extent to delineate the extent of the flood on the floodplain, *North Carolina Chapter of the American Society of Photogrammetry and Remote Sensing, 2002 Spring Meeting*. An invited presentation. Held at Myrtle Beach, South Carolina. May 9-11.
  25. Wang, Y., and Wade, S. E., 2001, Using digital spatial data sets to study the impact of reservoir construction on local environment and community, *the 56<sup>th</sup> Annual Meeting of the Southeastern Division of the Association of American Geographers*. A presentation, and an abstract published on p 44. Held at Louisville, Kentucky, Nov. 18-20, 2001.
  24. Wang, Y., Liao, M., Gong, J., and Sun, G., 2001, Landuse changes and land availability caused by inundation and human resettlement in the Three Gorges Dam region of China, *Proceedings of the 1<sup>st</sup> ALOS PI Workshop, Land use & Land Cover, Geology and Geography*, pp. 4-6, March 28-30, 2001, Tokyo, Japan.
  23. Wang, Y., Gares, P. A., and Brinson, M. M., 2001, Investigation of responses of North Carolina shorelines and coastal wetlands to sea level rise, *Proceedings of the 1<sup>st</sup> ALOS PI Workshop, Snow & Ice, Hydrology & Water Resource, and Ocean*, pp. 37-39, March 28-30, 2001, Tokyo, Japan.
  22. Wang, Y., 2000, Mapping the extent of a flood: what we have learned and how we could do better, *Symposium Proceedings of the Research in Support of Hazard Mitigation, Science in Service of Society*, Dept. of Emergency Management, North Carolina, pp. 171-178. Held in Raleigh, North Carolina. October 30-31, 2000.
  21. Wang, Y., Colby, J. D., and Mulcahy, K., 2001, An efficient method for mapping flood extent in a coastal floodplain, *Hurricane Floyd and its aftermath: recovery in the coastal plain*. A presentation and a poster presentation. Held at the East Carolina University, Greenville, North Carolina. May 24-26, 2000.
  20. Wang, Y., Colby, J. D., and Mulcahy, K., 2000, Mapping flood extent in a coastal floodplain by Landsat TM and DEM data, *the 6<sup>th</sup> International Conference: Remote Sensing for*

- Marine and Coastal Environments*. A poster presentation. Held at Charleston, South Carolina, May 1-3, 2000.
19. Colby, J. D., Wang, Y., and Mulcahy, K., 2000, Hurricane Floyd flood mapping: integrating Landsat 7 TM satellite imagery and DEM data, *Natural Hazards Observer and Disaster Research*, <http://www.Colorado.EDU/UCB/Research/IBS/hazards/qr/qr126/qr126.html>.
  18. Wang, Y., 1999, Mapping of coastal dunes by remotely sensed data, *the First International Forum on Remote Sensing Science*, hosted jointly by the Nanjing University, Beijing Normal University, and the Ministry of the National Science and Technology of China. A presentation. Held at the Nanjing University, Nanjing, China. June 6-14, 1999.
  17. Wang, Y., 1999, Inundation mapping in tropical floodplain by SAR, *the First International Forum on Remote Sensing Science*, Hosted jointly by the Nanjing University, Beijing Normal University, and the Ministry of the National Science and Technology of China. A presentation. Held at the Nanjing University, Nanjing, China. June 6-14, 1999.
  16. Wang, Y., 1998, Sensitivity of SAR backscatter to surface parameters in burned boreal forest areas, *the 94<sup>th</sup> Annual Meeting of America Association of Geographers*, A presentation and an abstract, pp. 823.
  15. Wang, Y., and Kasischke, E. S., 1997, Modeled SAR backscatter sensitivity from boreal forest environment, *the 93<sup>rd</sup> Annual Meeting of America Association of Geographers*, A presentation and an abstract, pp. 280.
  14. Wang, Y., and Davis, F., 1996, Radar backscatter components from ponderosa pine forests, *Proceedings of the International Geoscience and Remote Sensing Symposium, 1996 (IGARSS'96)*, pp. 1077-1079.
  13. Wang, Y., Day, J. L., and Davis, F., 1996, Sensitivity of modeled C-band backscatter from loblolly pine forests to surface soil roughness and moisture, *Proceedings of the International Geoscience and Remote Sensing Symposium, 1996 (IGARSS'96)*, pp. 1083-1085.
  12. Hess, L. L., Wang, Y., and Melack, J. M., 1996, Application of a radar target decomposition technique for flood detection: results from SIR-C Data, *Proceedings of the International Geoscience and Remote Sensing Symposium, 1996 (IGARSS'96)*, An poster presentation.
  11. Holecz, F., Wegmuller, U., Rignot, E., and Wang, Y., 1995, Observed and predicted radar backscatter from forested areas with terrain variations, *Proceedings of the International Geoscience and Remote Sensing Symposium, 1995 (IGARSS'95)*, pp. 613-615.
  10. Wang, Y. and Davis, F. W., 1995, Application of radar target decomposition theorem to microwave remote sensing of forests, in *Microwave Remote Sensing for Earth Observation* (ed. by Guo, H. and Zheng, L.), Science Press, Beijing, China, pp. 291.
  9. Wang, Y., Davis, F. W., and Kasischke, E. S., 1994, Effects of variation in soil moisture on ERS-1 SAR backscatter, *Proceedings of the International Geoscience and Remote Sensing Symposium, 1994 (IGARSS'94)*, pp. 1475-1477.
  8. Wang, Y., Hess, L. L., and Filoso, S., and Melack, J. M., 1994, Canopy penetration studies: modeled radar backscatter from amazon floodplain forests at C-, L-, and P-band, *Proceedings of the International Geoscience and Remote Sensing Symposium, 1994 (IGARSS'94)*, pp. 1060-1062.
  7. Urs, W., Holecz, F., Wang, Y., and Kattenborn, G., 1994, Theoretical sensitivity of ERS-1 SAR backscatter over forest, *Proceedings of the International Geoscience and Remote Sensing Symposium, 1994 (IGARSS'94)*, pp. 2477-2479.

6. Wang, Y., Davis, F. W., Melack, J. M., Kasischke, E. S., and Christensen, N. L., Jr., 1993, Relating P-band AIRSAR backscatter to forest stand parameters, *Summaries of the Fourth Annual JPL Airborne Geosci. Workshop*, JPL Publication 93-26, 3:81-84.
5. Wang, Y., Davis, F. W., and Melack, J. M., 1992, Modeled response of L-band radar backscatter from conifer woodland to changes in tree canopy volume, *Proceedings of the International Geoscience and Remote Sensing Symposium, 1992 (IGARSS'92)*, pp. 776-778.
4. Wang, Y., Davis, F. W., and Melack, J. M., 1992, Comparison of modeled backscatter with SAR data at P-band, *Summaries of the Third Annual JPL Airborne Geosci. Workshop*, JPL Publication 92-14, 3:9-11.
3. Wang, Y., Simonett, D. S., and Imhoff, M. L., 1990, A multiple-polarization layered radar model for mangal forests, *Proceedings of the International Geoscience and Remote Sensing Symposium, 1990 (IGARSS'90)*, pp. 487-490.
2. Wang, Y., Imhoff, M. L., and Simonett, D. S., 1989, Radar modeling of tropical mangal forest stands, *Proceedings of the International Geoscience and Remote Sensing Symposium, 1989 (IGARSS'89)*, pp. 2497-2500.
1. Simonett, D. S., Strahler, A. H., Sun, G., and Wang, Y., 1987, Radar forest modeling: potentials, problems, applications, models, *Advances in digital image processing, Proceedings of the Annual Conference of the Remote Sensing Society*, Nottingham, England, September 1987, pp. 256-269.

### **Courses taught at the East Carolina University**

Introduction to Geography (*Geog 1000, a undergraduate course*).  
 Spatial Data Management (*Geog 2400, a undergraduate course*).  
 Quantitative Techniques in Geography (*Geog 3400, a undergraduate course*).  
 Remote Sensing of Environment (*Geog3420, a undergraduate course*).  
 Geographic Information Systems I (*Geog 3430, a undergraduate course*).  
 Remote Sensing II (*Geog 4420, a undergraduate course*).

Quantitative Methods in Geography (*Geog 6150, a graduate course*).  
 Seminar in Geographic Information and Analysis (*Geog 6400, a graduate course*).  
 Advanced Remote Sensing (*Geog 6420, a graduate course*).

### **Service at the East Carolina University**

Director of the Center for Geographic Information Science (2000 – 2005).  
 Director of Graduate Studies for Geography (1999-2001).  
 Numerous member and chair positions in various committees at the Dept., College, and University levels, including Vice-Chair of the Faculty Senate Computer Committee, Chairs of Departmental Curriculum Committee, Computer Committee, and Social Committee.  
 Senator (representing Geography Dept.) at the Faculty Senate (2004-present).

### **Served as a reviewer/panelist/panel member**

In professional journals (e.g. *Canadian Journal of Remote Sensing*, *International Journal of Geographic Information System*, *International Journal of Remote Sensing*, *IEEE Transaction on GeoScience and Remote Sensing*, *Journal of Hydrologic Engineering*, *Journal of Tropical Forest Science* (Malaysia), *Natural Hazards* (the Netherlands), *Natural Hazards Review*, *North Carolina Geographer*, *Photogrammetric Engineering and Remote Sensing*, *Remote Sensing of Environment*, *Southeastern Geographers*, etc.)

Book reviewing for *The Annals of the Association of American Geographers*, and Chapters in books, books, and proposals to U.S. NASA, NSF, and EPA.

A panelist for the Annual EPA STAR Fellowship Program of Geography. 1999-2001, 2007.

A panel member of the 2004 Carbon Cycle Science, North America Carbon Program (NACP), and Remote Sensing (RS) Program of NASA/DOE/DOA.