CURRICULUM VITAE

WENGE NI-MEISTER, PH.D.

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EDUCATION

1997	Ph.D., Remote Sensing, Boston University
1994	M.S., Land-Atmosphere Interactions, The University of Connecticut
1992	M.S., Climatology, Chinese Academy of Sciences, P.R. China
1988	B.A., Meteorology, Nanjing Institute of Meteorology, P.R. China

EMPLOYMENT

2008–present	Associate Professor, Dept. of Geology and Geography, Hunter College of The City University of New York, New York, NY
2003–2007	Assistant Professor, Dept. of Geology and Geography, Hunter College of The City University of New York, New York, NY
2001–2003	Assistant Research Scientist, Goddard Earth and Science Technology, The University of Maryland at Baltimore County and NASA Goddard Space Flight Center, Maryland
1999-2001	Research Scientist, Dept. of Geography, The University of Maryland, College Park
1998–1999	Principal Scientist, Raytheon ITSS, Maryland
1994-1997	Graduate Research Assistant, Boston University
1992-1994	Graduate Research Assistant, The University of Connecticut

HONORS AND AWARDS

2004-2011	CUNY "Salute to Scholars" Award
2009-2010	NASA Goddard Visiting Fellowship

RESEARCH GRANTS

EXTRAMURAL GRANTS

2010-2012	Fusion of remotely sensed 3Dvegetation structure with a dynamic global terrestrial ecosystem model for improved estimates of carbon stocks and land-atmosphere exchanges, National Aeronautics and Space Administration (NASA) Cryosphere Program, ***PI: W. Ni-Meister*****,** Co-I: N. Kiang, $240,000.
2010-2011	Fusion of radar and lidar data to map 3Dvegetation structure and biomass, ***PI: W. Ni-Meister***, National Aeronautics and Space Administration (NASA) Terrestrial Ecosystem Program, $100,000.

2006-2009 Ent: A model for terrestrial ecosystem-climate interactions for seasonal to century time scales through coupled water, carbon, and nitrogen dynamics, PI: N. Kiang (PI) ***Co-Is: W. Ni-Meister,*** *P. Moorcroft and R. Koster,* National Aeronautics and Space Administration (NASA) Modeling Analysis and Prediction Program, $1500,000, 06/01/2006 - 06/01/2009.

2006-2009 Retrieval of vegetation structure and carbon balance parameters using ground based lidar and scaling to airborne and spaceborne lidar sensors, PI: A. Strahler, ***Co-Is***: ***W. Ni-Meister****, C. E. Woodcock and C. Schaaf*, National Aeronautics and Space Administration (NASA) Terrestrial Ecosystem Program, $300,000.

2004-2007 Integrating NASA Land Information System (LIS) data with EPA nonpoint source water quality assessment decision support tools, ***PI: W. Ni-Meister***, National Aeronautics and Space Administration (NASA) Terrestrial Hydrology Program, $90,000.

2006-2007 Integrated learning of urban environment, ***PI: W. Ni-Meister,*** National Aeronautics and Space Administration (NASA) Education program, $80,000.

2004-2006 Optimal land initialization for seasonal climate predictions, PI: Paul Houser, ***Co-Is: W. Ni-Meister*** and Jeffery Walker, National Aeronautics and Space Administration (NASA) Ocean, Ice and Climate program, $240,000.

2002-2005 The Effect of subgrid variability of snow cover in vegetated regions on land-atmosphere interactions, ***PI: W. Ni-Meister,*** National Aeronautics and Space Administration (NASA) Global Water and Energy Cycle, $200,000.

2004-2006 Education partnership in the NASA EOS higher education alliance project, PI: H. Gong, ***Co-I: W. Ni-Meister*** , National Aeronautics and Space Administration (NASA) Earth Science Research Educations, and Applications Solution Network (REASoN) program, $20,000.

CUNY INTERNAL GRANTS

2004-2005 Environment and climate impacts of urban land use in New York City: A satellite remote sensing prospective, PI: ***W. Ni-Meister***, CUNY Program for Ecological and Environmental Research (PEER) Award, $30,000.

2004-2005 Monitoring crop diversification using remote sensing for water and land resources management in the Chao Phraya Delta, Thailand, PI: ***W. Ni-Meister***, The Professional Staff Congress-City University of New York (PSC-CUNY) Research Award, $3,000.

2005-2006 Remote sensing estimates for vegetation structure and biomass, PI: ***W. Ni-Meister***, The Professional Staff Congress-City University of New York (PSC-CUNY) Research Award, $3,886.

2007-2008 A Canopy Radiative Transfer Scheme for a Global Dynamic Terrestrial Ecosystem Model, PI: ***W. Ni-Meister***, The Professional Staff Congress-City University of New York (PSC-CUNY) Research Award, $5,970.

2009-2010 Integration of Vegetation Structure with a Dynamic Global Terrestrial Ecosystem Model for Improved Estimates of Carbon Stocks and Land-

Atmosphere Exchanges, PI: ***W. Ni-Meister***, The Professional Staff Congress-City University of New York (PSC-CUNY) Research Award, $5,140.

PUBLICATIONS

PEER REVIEWED JOURNAL ARTICLES

2011 ***Ni-Meister, W.*** and H. Gao: Assessing the impacts of vegetation heterogeneity on energy fluxes and snowmelt in boreal forests, *Journal of Plant Ecology, 4:37-47.*

2011 Dong, J. and ***W. Ni-Meister***: Analysis of diurnal boundary layer development in boreal forests: measurements and simulations, *Journal of Plant Ecology (in press).*

2011 Yang, W., ***W. Ni-Meister***, and S. Lee: Assessment of the impacts of surface topography, off-nadir pointing and vegetation structure on vegetation lidar waveforms using an extended geometric optical and radiative transfer model, *Remote Sensing of Environment (in press).*

2011 Lee, S., ***W. Ni-Meister***, W. Yang: Physically based vertical vegetation structure retrieval from ICESat data: Validation using airborne data in White Mountain National Forest, New Hampshire, USA, *Remote Sensing of Environment (in press).*

2011 Lovell, J.L., D.S. Culvenor, G.J. Newnham, A.D. Richardson, ***W. Ni-Meister,*** C. B. Schaff, C.E. Woodcock, and A. H. Strahler: Measuring leaf area index, foliage profile, and stand height in New England forest stands using ground-based lidar, *Remote Sensing of Environment (in press).*

2011 Zhao, F., M. Schull, M. Roman-Colon, T. Yao, X. Yang, Z. Wang, Q. Zhang, D. Jupp, D. Culvenor, G. Newnham, ***W. Ni-Meister***, C. Schaaf, C. Woodcock, and A. Strahler: Comparison of leaf area index and foliage profile retrievals from the Echidna® ground-based lidar, digital hemispherical photography, and LAI-2000 for New England forest sites. *Remote Sensing of Environment (in press).*

2011 Yao, T. , X. Yang, F. Gao, Z. Wang, Q. Zhang, D. Jupp, D. Culvenor, G. Newnham, ***W. Ni-Meister,*** C.B. Schaaf, C. Woodcock, and A. Strahler: Estimation of forest structure parameters using the Echidna® ground-based lidar at New England forest sites. *Remote Sensing of Environment (in press).*

2010 ***Ni-Meister, W***., W. Yang, and N. Kiang: A clumped-foliage canopy radiative transfer model for a global dynamic terrestrial ecosystem model I: Theory, *Agriculture and Forest Meteorology*, 150(7-8):881-894, doi:10.1016/j.agrformet.2010.02.009.

2010 Yang, W., ***W. Ni-Meister,*** N. Kiang, P. R. Moorcroft, A. H. Strahler and A. Oliphant:A clumped-foliage canopy radiative transfer model for a global dynamic terrestrial ecosystem model I: Validation, *Agriculture and Forest Meteorology, 150(7-8):895907,* doi:10.1016/j.agrformet.2010.02.008.

2010 ***Ni-Meister, W***., S. Lee, A. H. Strahler, C. E. Woodcock,C. Schaaf, J. Ranson, G.Sun, and J. B. Blair: Assessing general relationships between above-ground biomass and vegetation structure parameters for improved carbon estimate from vegetation lidar, *Journal of Geophysical Research,* VOL. 115, G00E11, doi:10.1029/2009JG000936.

2010 Lee, S., ***W. Ni-Meister****,* D. Toll, J. Nigro, A. L. Gutierrez-Magness and T. Engman: Assessing the hydrologic performance of the EPA's nonpoint source water quality assessment decision support tool using North American Land Data Assimilation

System (NLDAS) products, *Journal of Hydrology, 387(3-4):212-220,* doi:10.1016/j.jhydrol.2010.04.009.

2010 Nigro, J., D. Toll, E. Partington, ***W. Ni-Meister***, S. Lee, A. Gutierrez-Magnesse, T. Engman, and K. Arsenault: NASA-modified precipitation products to improve EPA nonpoint source water quality modeling for the Chesapeake Bay, *Journal of Environmental Quality, 39: 4: 1388-1401, doi:10.2134/jeq2009.0161.*

2008 ***Ni-Meister, W.***, A. H. Strahler, C. E. Woodcock, C. Schaaf, D. L. B. Jupp, T. Yao, F. Zhao, and X. Yang: Modeling the hemispherical scanning, below-canopy lidar and vegetation structure characteristics with a geometric optical and radiative transfer model, *Canadian Journal of Remote Sensing, 34(Suppl. 2): S385-S397*。

2008 Strahler, A. H, D. L. B. Jupp, C. E. Woodcock, C. B. Schaaf, T. Yao, F. Zhao, X. Yang, J. Lovell, D. Culvenor, G. Newnham, ***W. Ni-Meister***, and W. Boykin-Morris: Retrieval of forest structural parameters using a ground-based lidar instrument (Echidna@) *Canadian Journal of Remote Sensing,34(Suppl. 2):S426-S440.*

2008 ***Ni-Meister, W.***: Recent advances on soil moisture data assimilation, Physical Geography*,* 29(1):19-37.

2007 Dong, J., ***W. Ni-Meister,*** and P. R. Houser: Impacts of vegetation and cold season processes on soil moisture -- climate relationships over Eurasia, *Journal of Geophysical Research, Vol. 112,D09106, doi:10.1029/2006JF007774.*

2006 Lee, S. and ***W. Ni-Meister:*** Monitoring coastal estuary water clarity using landsat multispectral data, *Middle States Geographer, 39:43-51.*

2006 ***Ni-Meister, W.***, P. Houser, and J. Walker: Soil moisture initialization for climate prediction: Assimilation of SMMR soil moisture data into a land surface model, *Journal of Geophysical Research* Vol.111, D20102, doi:10.1029/2006JD007190.

2005 ***Ni-Meister, W.,*** J. Walker, and P. Houser: Soil moisture initialization for climate prediction: Characterization of model observation errors, *Journal of Geophysical Research,* Vol.110, D13111,doi:10.1029/2004JD005745.

2004 Pereira, J., B. Mota, J. L. Privette, K. K. Caylor, J. M.N. Silva, A. C.L. Sá, and ***W. Ni-Meister***: A simulation analysis of the detectability of understory burns in *miombo* woodlands, *Remote Sensing of Environment*, 96(3): 296-310.

2004 Pinty B., J. Widlowski, M. Taberner, N. Gobron, M. Verstraete, M. Disney, F. Gascon, J. Gastellu, L. Jiang, A. Kuusk, P. Lewis, X. Li, ***W. Ni-Meister,*** T. Nilson, P. North, W. Qin, L. Su, S. Tang, R. Thompson, W. Verhoef, H. Wang, G. Yan, H. Zang: The Radiation transfer Model Intercomparison (RAMI) Exercise: Results from the second phase, *Journal of Geophysics Research*, 109, D06210, 10.1029/2003JD004252.

2001 ***Ni-Meister*, W**., D.L.B. Jupp, and R. Dubayah: Modeling lidar waveforms in heterogeneous and discrete canopies, *IEEE Transactions on Geoscience and Remote Sensing*, 39(9):1943-1958.

2001 Yang, R., M.A. Friedl, and ***W. Ni*:** Parameterization of shortwave radiation fluxes for nonuniform vegetation canopies in land surface models, *Journal of Geophysical Research*, 106(D13):14275-14286.

2001 Gao, X., A.R. Huete, ***W. Ni,*** and, T. Miura: Review of optical-biophysical relationships of pure vegetation spectral without background contamination, *Remote Sensing of Environment*, 74:609-620.

2000 ***Ni, W.*** and C.E. Woodcock: Effect of canopy structure and the presence of snow on the albedo of boreal conifer forest, *Journal of Geophysical Research*, 105(D9): 11879-11888.

2000 ***Ni, W.,*** and D.L.B. Jupp: Spatial variance in directional remote sensing imagery – recent developments and future perspectives, *Remote Sensing Review*, 18(2-4):441-479.

2000 ***Ni, W.*** and X. Li: A coupled vegetation – soil bidirectional reflectance model for a semi-arid landscape, *Remote Sensing of Environment*, 74:113-124.

1999 ***Ni, W.,*** X. Li, C.E. Woodcock, M. Caetano, and A.H. Strahler: An analytical model of bidirectional reflectance over discontinuous plant canopies, *IEEE Transactions on Geoscience and Remote Sensing*, 37(2):987-999.

1999 ***Ni, W.,*** C.E. Woodcock, and D.L.B. Jupp: Variance in bidirectional reflectance over discontinuous plant canopies, *Remote Sensing of Environment*, 69(1): 1-15.

1998 Hardy, J.P., R.E. Davis, R. Jordan, ***W. Ni,*** and C.E. Woodcock: Snow ablation modeling in conifer and deciduous stands of the boreal forest, *Hydrological Processes*, 12:1763-1778.

1997 ***Ni, W.,*** X., Li, C.E. Woodcock, J.L. Roujean, and R. Davis: Transmission of solar radiation in boreal conifer forests: measurements and models, *Journal of Geophysical Research*, 102(D24): 29555-29566.

1997 ***Ni, W.:*** A coupled transilience model for turbulent air flow in plant canopy and planetary boundary layer, *Agricultural and Forest Meteorology*, 86: 77-105.

1997 Davis, R.E., J. Hardy, ***W. Ni,*** C.E. Woodcock, C. McKenzie, R. Jordan, and X. Li: Variation of snow cover processes in the boreal forest: a parametric study on the effects of conifer canopy, *Journal of Geophysical Research,* 102(D24): 29389-29396.

1997 Hardy, J.P., R. Davis, R. Jordan, X. Li, C. Woodcock, ***W. Ni***, and J. McKenzie: Snow ablation modeling at the stand scale in a boreal jack pine forest, *Journal of geophysical Research,* 102(D24):29397-29406.

1996 Li, X., ***W. Ni,*** B. Hu, C.E. Woodcock, and A.H. Strahler: Decoupling path-scattering of light in a homogeneous layer and multiple bouncing at its non-Lambertian bottom, *Science in China,* (series E), 39(6): 656-669b.

1996 Li, X., ***W. Ni,*** B. Hu, A.H. Strahler, and C.E. Woodcock: Path-scattering of light in a homogeneous layer and multiple bouncing at its Non-Lambertian bottom, *China Science, (series E)* (In Chinese), 26(5): 457-466a.

1993 Zhang, X., D. Yang, and ***W. Ni:*** PE (Potential Evapotranspiration) index and vegetation-climate classification-major methods and PEP programs, *Acta Phytoecological ET Geobotanica Sinica (in Chinese), Vol. 17, Feb.*

PEER-REVIEWED BOOK CHAPTERS

2004 Geiger B. and ***W. Ni***. Directional reflection properties of heterogeneous surfaces, book chapter in *Bidirectional Properties of Land Surfaces* edited by M. Schoenermarck, publisher: Wissenschaft & Technik Verlag, Pages 147-172.

2004 Meister, G., K. Tornow, and ***W. Ni***, Geometrical Optical BRDF Models, book chapter in *Bidirectional Properties of Land Surfaces* edited by M. Schoenermarck, publisher: Wissenschaft & Technik Verlag, Pages:82-104.

REPORTS

1999 ***Ni, W.,*** Atmospheric correction over land for Visible/Infrared Image Radiometer Suite (VIIRS) sensor of the National Polar-orbiting Operational Environmental Satellite System (NPOESS), Algorithm Theoretical Basis Document, Raytheon ITSS Internal Report.

CONFERENCE PRESENTATIONS

2010 ***Ni-Meister, W.,*** S. Lee, W. Yang and N. Kiang, Development of vegetation structure inputs from ICESat, SRTM and MODIS for a dynamic global terrestrial ecosystem model, International Society of Photogrammetry and Remote Sensing, Technical Commission VII Symposium, Vienna, Austria, July 5-7 (oral presentation).

2010 ***Ni-Meister, W.,*** S. Lee and W. Yang: A physical approach to retrieve vegetation structure from ICESat/GLAS data, American Society of Photogrammetry and Remote Sensing, San Diego, California. April 26–30 (oral presentation).

2009 ***Ni-Meister, W.,*** S. Lee, A. H. Strahler, C. E. Woodcock,C. Schaaf, J. Ranson, G.Sun, and J. B. Blair: Assessing general relationships between above-ground biomass and vegetation structure parameters for improved carbon estimate from vegetation lidar, *American Geophysical Union,* San Francisco, CA, December 14-18, (oral presentation).

2008 Yang, W., **W.,** ***Ni-Meister,*** and S. Lee, Assessment of the impacts of surface topography, off-nadir pointing and vegetation structure on vegetation lidar waveforms using an extended geometric optical and radiative transfer model, *American Geophysical Union,* San Francisco, CA, December 15-19, (poster). .

2008 Lee, S., ***W. Ni-Meister***, W. Yang, Physically based vertical vegetation structure retrieval from ICESat data: Validation using airborne data in White Mountain National Forest, New Hampshire, USA, *American Geophysical Union,* San Francisco, CA, December 15-19, (poster).

2008 ***W. Ni-Meister,*** S. Lee, A. Strahler, C. E. Woodcock, D. L. Jupp, G. Sun, J. Ranson, J. B. Blair and M. Hofton, Combining above canopy downward-looking and below canopy upward hemispherical scanning lidar for improved above ground biomass retrieval, *IEEE International Geoscience and Remote Sensing Symposium*, July 6-11, 2008, Boston, MA (oral presentation).

2008 ***W. Ni-Meister,*** S. Lee, A. Strahler, C. E. Woodcock, D. L. Jupp, G. Sun, J. Ranson, J. B. Blair and M. Hofton, Combining above canopy downward-looking and below canopy upward hemispherical scanning lidar for improved above ground biomass retrieval, *VEG3D & BIOMASS: Science and measurement requirements for future spaceborne missions,* Charlottesville, VA, March 3-5 (poster).

2007 ***W. Ni-Meister***, W. Yang and N. Kiang, A structure-based canopy radiative-transfer scheme for a global dynamic terrestrial ecosystem model, *American Geophysical Union,* San Francisco, CA, December 10-14, (poster).

2006 ***Ni-Meister, W.,*** N. Kiang, and P. Moorcroft, Ent: Canopy radiative transfer for a

global dynamic vegetation models: characterization of foliage clumping, *Joint Workshop on NASA Biodiversity, Terrestrial Ecology, and Related Applied Science,* College Park, Maryland, August 21-25, (poster).

2006 ***Ni-Meister, W.,*** 3D Vegetation structure extraction from lidar remote sensing*, IEEE International Geoscience and Remote Sensing Symposium & 27th Canadian Symposium on Remote Sensing,* Denver, Colorado, July 31-August 04, (oral presentation).

2006 ***Ni-Meister, W.,*** 3D Vegetation Structure extraction from lidar remote sensing*, American Geophysical Union,* spring Meeting, Baltimore, Maryland, May 21-25, (oral presentation).

2005 ***Ni-Meister, W.,*** 3D Vegetation structure extraction from lidar remote sensing*, The 9th International Symposium on Physical Measurements and Signature in Remote Sensing (ISPMSRS),* Beijing, China, October 17-19, (oral presentation).

2005 ***Ni-Meister, W.,*** *P. Houser, and J. P. Walker,* Soil moisture initialization for climate prediction: assimilating SMMR into a land surface model, *The 9th International Symposium on Physical Measurements and Signature in Remote Sensing (ISPMSRS),* Beijing, China, October 17-19, (oral presentation).

2005 ***Ni-Meister, W.,*** 3D vegetation structure extraction from lidar remote sensing, *The International Society for Optical Engineering,* San Diego, California, July 31-August 5, (poster).

2004 ***Ni-Meister, W.,*** J. P. Walker, and P. Houser, Soil moisture initialization for climate prediction: assimilating SMMR into a land surface model, *The Terrestrial Water Cycle: Modeling and Data Assimilation across Catchment Scales CAHMDA-II,* Princeton, New Jersey, October 25-27 (poster).

2004 ***Ni-Meister, W.*** and J. Dong, Analysis of boundary layer development in boreal forest through models and observations, *26th Conference on Agricultural and Forest Meteorology*, Vancouver, August 22-26, (oral presentation).

2004 ***Ni-Meister, W.,*** J. P. Walker, and P. R. Houser, Soil moisture initialization for climate prediction: Characterization of model observation errors, *the 84 Annual American Meteorological Society,* Seattle, Washington, January 11-15. (oral presentation).

2003 ***Ni-Meister, W.,*** J. P. Walker, and P. R. Houser, Soil moisture initialization for climate prediction through data assimilation, *the 30 International Symposium on Remote Sensing of Environment,* Honolulu, Hawaii, November 10-14, (oral presentation).

2002 ***W, Ni-Meister,*** J.P. Walker, R.H. Reichle, P.R. Houser, and R.D. Koster, Soil moisture initialization for climate predictions: Assimilating SMMR into a land surface model *American Geophysical Union*, fall meeting., San Francisco, California, December 9-13 (poster).

2002 R.H. Reichle, R.D. Koster, ***W. Ni-Meister***, and P.R. Houser, A parallel ensemble Kalman Filter for four-dimensional land data assimilation. *American Geophysical Union,* fall meeting, San Francisco, California, December 9-13, (oral presentation).

2001 ***Ni, W.,*** R. Dubayah, D. Lettenmaier, and E.F. Wood, Scaling up land surface processes in boreal forests, *American Geophysical Union,* spring meeting, Boston,

Massachusetts, May 29-June 2, (oral presentation).

2000 ***Ni, W.,*** R. Dubayah and, J.B. Blair, Modeling lidar waveforms using a geometric and optical radiative transfer model for discontinuous plant canopies, *Ecological Society of America,* annual meeting, Snowbird, Utah, August 6-10, (oral presentation).

1999 ***Ni, W.,*** D.L. B. Jupp, P. Bicheron, and M. Leroy, Investigating the information in multi-view angle spatial variance of images from conifer forests using ASAS and POLDER, *Second International Workshop on Multiangular Measurements and Models,* San Francisco, CA , December 13-14, (oral presentation).

1999 Gao, X., A.R. Huete and ***W. Ni***. Optical-biophysical relationships of pure vegetation spectra without background contamination, *American Geophysical Union, fall meeting,* San Francisco, CA , December 6-10, (oral presentation).

1999 ***Ni, W.,*** and C.E. Woodcock. Surface albedo of boreal conifer forest: modeling and measurements, *International Geoscience and Remote Sensing Symposium (IGARSS),* Hamburg, Germany, June 28-July 2 in (poster).

1999 ***Ni, W.*** Modeling the bidirectional reflectance for a semi-arid landscape, *International Geoscience and Remote Sensing Symposium (IGARSS),* Hamburg, Germany, June 28-July 2, (oral presentation).

1998 ***Ni, W.,*** X. Li, and C.E. Woodcock. A simplified GORT Model for Bidirectional reflectance over discontinuous plant canopies, *International Geoscience and Remote Sensing Symposium (IGARSS),* p.237-1239, Seattle, Washington, July 6-10, (oral presentation).

1998 Meister, G., S. Sandmeier and ***W. Ni,*** Analyzing Hyperspectral BRDF Data of a Grass lawn and Watercress Surface Using and Empirical model, *International Geoscience and Remote Sensing Symposium (IGARSS),* p.1246-1248 Seattle, Washington, July 6-10, (oral presentation)..

1997 Davis, R.E., C. Woodcock, J.P. Hardy, ***W. Ni,*** R. Jordan J.C. McKenzie. Spatially distributed modeling of snow in the boreal forest: A simple approach, *65th Western Snow Conference*, Banff, Canada, May 5-9, (oral presentation).

1997 Davis, R.E., J.P. Hardy, ***W. Ni*** and C. Woodcock. Parameterizing and validating spatially distributed snow processes in forests*, American Geophysical Union*, fall meeting, San Francisco, California, December, 8-12, (oral presentation).

1997 Hardy, J.P., R.E. Davis, R. Jordan, ***W. Ni*** and C. Woodcock. Snow ablation modeling in conifer and deciduous stands of the boreal forest, *65th Western Snow Conference,* Banff, Canada, May 5-9, (oral presentation).

1997 Li, X. and ***W. Ni,*** Fusion of multiangular and imaging spectrometer data, *Asian GIS AM/FM and GeoInformatics,* Taipei, Taiwan, May, (oral presentation).

1996 ***Ni, W.,*** X. Li, C.E. Woodcock J. L. Roujean, R. Davis, and A.H. Strahler, Modeling solar radiation transmission in boreal conifer forests, *International Geoscience and remote Sensing Symposium (IGARSS),* Lincoln, Nebraska, May 26-30, (oral Presentation).

1996 Li, X., ***W. Ni,*** C.E. Woodcock and A. Strahler. A simplified hybrid model for radiation under discontinuous plant canopies, *International Geoscience and Remote Sensing Symposium (IGARSS),* Lincoln, Nebraska, May 26-30, (oral Presentation).

1996 ***Ni, W.,*** B. Davis and C.E. Woodcock. A combined turbulent air flow, solar radiation

and snowmelt model for boreal coniferous forest, *American Geophysical Union,* fall meeting, San Francisco, California, December 9-13, (abstract).

1994 Yang, X., ***W. Ni,*** and David, R. Miller. Application of transilient turbulence theory to model turbulent transport processes on vegetation, *21st Conference on Agricultural and Forest Meteorology*, March 7-11, San Diego, California, (oral presentation).

INVITED TALKS

2010 Impacts of vegetation structure on terrestrial ecosystem processes: model development and integration with remote sensing, Department of Energy.

2008 Land, water and climate – Earth from above, University Consortium for Geographic Information Science (UCGIS) Winter Meeting, Washington D. C., January 7-8.

2008 A physical approach for assessing vegetation structure retrieval requirements for the ICESAT-II and DESDynl Missions, NASA Goddard Space Flight Center.

2008 A physical approach for assessing vegetation structure retrieval requirements for the ICESAT-II and DESDynl Missions, Department of Civil Engineering, CUNY-City College of New York.

2006 Biosphere and atmosphere interactions at local and continental scales, University of Delaware.

2005 Integrating multiangular and vegetation lidar data for 3D vegetation structure extraction, MISR Workshop on Ecological Modeling using Multiangle Remote Sensing, Greenbelt, Maryland, September 20.

2005 Soil moisture initialization for climate prediction: Assimilating SMMR into a land surface model, Department of Earth & Environmental Studies, Montclair State University.

2004 Implication of vegetation heterogeneity for soil-vegetation-atmosphere transfer and remote sensing application, Department of Civil Engineering, Princeton University.

2004 Implication of vegetation heterogeneity for soil-vegetation-atmosphere transfer and remote sensing applications, Department of Geography, CUNY-Hunter College

2003 Effects of land surface heterogeneity on land-atmosphere interactions, Department of Geography, Ohio State University

2003 Forest assessment and monitoring with lidar remote sensing, Department of Geography, CUNY-Hunter College

2003 Effects of land surface heterogeneity on land-atmosphere interactions, Department of Geography, East Carolina University.

2003 Remote sensing for forestry management, Department of Geography and Geology, Western Kentucky University

2002 Effects of land surface heterogeneity on land-atmosphere interactions, Department of Geography, University at Buffalo, The State University of New York

2002 Applications of remote sensing in land and atmosphere interaction studies, Department of Geology, University of Texas at Austin

2001 Soil-vegetation-atmosphere interactions in boreal forests: Integrating SVATS and remote sensing, Department of Geography, North Carolina University at Chapel Hill

1999 A forest canopy radiation model and its applications for remote sensing, Department

of Geography, Michigan State University

TEACHING AND ADVISING

COURSES TAUGHT

The University of Maryland

- Introduction to Remote Sensing (Winter 2003)

The City University of New York – Hunter College

- Remote Sensing of Environment (Fall 2003, 2004, 2006 and 2007, Spring 2009 and 2011)
- Advanced Digital Image Processing (Spring 2005, Fall 2008)
- Earth From Above (Fall 2005 and 2010, Winter 2007, Spring 2008)
- Hydrology (Fall 2005, 2006, 2007, 2008)
- Biogeography (Spring 2004, 2006, 2008, 2011)
- Field Biogeography (Summer 2009)

ADVISING

Current Graduate Student Advisees

Gordon Green (Ph.D. Candidate at CUNY Graduate Center); Atsushi Tomita (PhD candidate at CUNY Graduate Center); Xiyan Xu (Ph.D. Candidate at CUNY Graduate Center); Linda Pistolesi (MA)

Former Postdoc Advisee

Wenze Yang

Former Graduate Student advisees

Feng Zhao(Ph.D., 2010); Shiyan Lee (Ph.D., 2010); Anuradha Swatantran (PhD candidate); Eliza Bradley (PhD candidate); Xixi Chen (M.A., 2004); Robert Weiner (M.A.,2006); Pat Hackbarth (M.A.,2010)

PROFESSIONAL SERVICE

Membership

1997-2010 *American Geophysical Union*

2006-2010 *Association of American Geographers*

1997-2000 *IEEE International Geoscience and Remote Sensing Society*

Reviewing Activities

2010 Proposal Review Panel: *NASA New Investigator Program*

2009 Proposal Review Panel: *NASA Ocean and Coastal Water Quality Program*

2008 Proposal Review Panel: *NASA Terrestrial Ecosystem Program*

2003 Proposal Review Panel: *NASA Interdisciplinary Science in the Earth Science Enterprise*

Manuscript Reviewing for Journal of Geophysics Research, Geophysical Research Letters, Journal of Hydrometeorology, Remote Sensing Reviews, IEEE Transaction of Geoscience and Remote Sensing, IEEE Transaction of Geoscience and Remote Sensing Symposium, Remote Sensing of Environment, Photogrammetric Engineering and Remote Sensing, Ecological Modeling, Climate Dynamics

Proposal Reviewing for National Aeronautics and Space Administration (NASA), National Oceanic and Atmospheric Administration (NOAA), National Science Foundation (NSF), Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)

Session Chair*:* Forest Structure and Biomass, IEEE International Geoscience and Remote Sensing Symposium, July 6-11, 2008, Boston, Massachusetts; Modeling, IEEE International Geoscience and Remote Sensing Symposium, July 25-30, 2010, Honolulu, Hawaii.

Interactive Section Competition Evaluation Committee: IEEE International Geoscience and Remote Sensing Symposium, July 31-August 4, 2006, Denver, Colorado.

CUNY-Hunter College

2005 member of Computing Committee

2004-current member of PhD Graduate Student Exam Committee