

Curriculum Vitae

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1. Personal Information

Education

Ph.D, Department of Geography, Boston University (USA), January, 1993

M.S., Department of Geography, Nanjing University (China), July, 1986

B.S., Department of Geography, Nanjing University (China), July, 1983

Employment

8/07 - present *Professor*, University of Maryland

8/01 – 7/07 *Associate Professor*, University of Maryland

8/95 – 7/01 *Assistant Professor*, University of Maryland

9/93 - 8/95 *Assistant Research Scientist*, University of Maryland

5/92 - 8/93 *Postdoctoral Research Associate*, Boston University

7/86 - 12/88 *Assistant Professor and Lecturer*, Nanjing University, China

2. Research, Scholarly and Creative Activities

a. Books

i. Books authored or edited:

Liang, S., *Quantitative Remote Sensing of Land Surfaces*, John Wiley and Sons, Inc., 534 pages, ISBN #: 0-471-28166-2, 2004. (Its expanded version has been translated into Chinese and published by Science Press, Beijing, Feb. 2009, ISBN #:978-7-03-023742-2, 388 pages).

Liang, S., (Editor), *Advances in Land Remote Sensing: System, Modeling, Inversion and Application*, Springer, ISBN #: 978-1-4020-6449-4, 2008.

Liang, S., X. Li, and J. Wang. (Editors), *Advanced Remote Sensing: Terrestrial Information Extraction and Applications*, Academic Press, 800 pages, 497 pages, ISBN#: 9780123859556, August 2012. (Chinese version is being published by Science Press).

Liang, S., X. Li, and X. Xie (Editors), *Land Surface Observation, Modeling and Data Assimilation*, World Scientific,(High Education Press for Chinese editions), in press.

ii. Special Issues edited:

Liang, S., J. Shi, and A. Li, (Guest Editors), special issue of the *International Journal of Digital Earth*, in press.

Liang, S., W. Kustas, G. Schaepman, and X. Li, (Guest Editors), special issue of the *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*. Sept. 2010.

Liang, S., J. Liu, and X. Li, (Guest Editors), special issue of *Photogrammetric Engineering and Remote Sensing*, Oct. 2007.

Liang, S., J. Liu, X. Li, R. Liu and M. Schaepman, (Guest Editors), special issue of *Journal of Remote Sensing*, Sept. 2007.

Schaepman, M.E., **Liang, S.**, Groot, N.E., Kneubühler, M., (Editors), (2007), *Proceedings of the 10th International Symposium on Physical Measurements and Spectral Signatures in Remote Sensing (ISPMSRS'07)*, March 12-14, 2007, Intl. Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Vol. XXXVI, Part 7/C50, ISPRS, Davos (CH), 620pp, ISSN 1682-1777.

Morisette, J., F. Baret, **S. Liang**, (Guest Editors), *Global Land Product Validation*, special issue of *IEEE Transactions on Geosciences and Remote Sensing*, 44(7):1695-1937, July, 2006

Liang, S., J. Liu, X. Li, R. Liu, and M. Schaepman, (Editors), *Proceedings of the 9th International of Symposium on Physical Measurements and Signatures in Remote Sensing (ISPMSRS)*, Oct. 17-19, 2005, Beijing, China, two volumes, 845pp, ISSN 1682-1750.

Liang, S. & A. Strahler, (Guest Editors), *Land Surface Bi-directional Reflectance Distribution Function (BRDF): Recent Advances and Future Prospects*, special issue of *Remote Sensing Reviews*, 18:83-511, 2000.

iii. Chapters in books:

Liang, S., T. He, X. Zhang, J. Cheng, and D. Wang, (2012), Remote sensing of Earth surface radiation budget, in *Remote Sensing of Land Surface Turbulent Fluxes and Soil Surface moisture Content: State of the Art*, George P. Petropoulos (ed.), CRC Press

Liang, S., J. Wang, B. Jiang, (2012), A Systematic View of Remote Sensing, in *Advanced Remote Sensing: Terrestrial Information Extraction and Applications*, Liang, S., X. Li, and J. Wang (eds), Chapter 1, 1-31, Academic Press.

Zhang, X., **S. Liang**, G. Zhou, H. Wu, (2012), Estimation of incident solar radiation, in *Advanced Remote Sensing: Terrestrial Information Extraction and Applications*, Liang, S., X. Li, and J. Wang (eds), Chapter 6, 127-173, Academic Press

Zhao, X., X. Zhang, **S. Liang**, (2012), Atmospheric Correction of Optical Imagery, in *Advanced Remote Sensing: Terrestrial Information Extraction and Applications*, Liang, S., X. Li, and J. Wang J. Wang (eds), Chapter 5, 111-126, Academic Press

- Sun, G. W. Sun, S. Liang, Z. Zhang, E. Chen, (2012), Above-ground Biomass, in *Advanced Remote Sensing: Terrestrial Information Extraction and Applications*, Liang, S., X. Li, and J. Wang (eds), Chapter 15, 467-499, Academic Press
- Liang, S.**, B. Jiang, T. He, and X. Zhu, (2012), Estimation of Soil Moisture, in *Advanced Remote Sensing: Terrestrial Information Extraction and Applications*, Liang, S., X. Li, and J. Wang (eds), Chapter 19, 589-614, Academic Press
- Zhu, X., **Liang, S.**, B. Jiang, (2012), Land Cover and Land Use Changes, in *Advanced Remote Sensing: Terrestrial Information Extraction and Applications*, Liang, S., X. Li, and J. Wang (eds), Chapter 24, 703-772, Academic Press
- Fang, H., **S. Liang**, and G. Hoogenboom, (2012), Assimilation of remote sensing data and crop simulation models for agricultural study: Recent Advances and Future Directions, in *Land Surface Observation, Modeling and Data Assimilation*, S. Liang, X. Li, and X. Xie (Eds.), High Education Press, (in Chinese), in press.
- Yao, Y., **S. Liang**, and T. Xu, (2012), Remote sensing data products for land data assimilation, in *Land Surface Observation, Modeling and Data Assimilation*, S. Liang, X. Li, and X. Xie (Eds.), High Education Press, (in Chinese), in press.
- Cheng, J., and **S. Liang**, (2011), Radiative Transfer Modeling, in *Encyclopedia of Snow, Ice and Glaciers*, V. P. Singh, P. Singh, U. K. Haritashya (eds.), Springer, 903-913
- Liang, S.**, K. Wang, W. Wang, D. Wang, S. Gui, X. Zhang, J. Mirmelstein, X. Zhu, H. Kim, J. Du, S. Running, J. Townshend, S. Tsay, R. Wolf, C. Schaaf, & A. Strahler (2009), Mapping High-Resolution Land Surface Radiative Fluxes from MODIS: Algorithms and Preliminary Validation Results, in *Geospatial Technology for Earth Observation*, D. Li, J. Shan, and J. Gong, (Ed.), Chapter 6, pp. 141-176, Springer
- Liang, S.**, R. Liu, J. Qin, W. Sun, K. Wang, and J. Yang, (2009), Remote sensing observations and inversion of land parameters for supporting ecosystem model simulation, in *Human Activities and Ecosystem Dynamics*. Yu, G. et al. (Ed.), Higher Education Press, Beijing (in Chinese), Chapter 4, 121-156.
- Liang, S.**, (2009), Quantitative Models and Inversion in Remote Sensing, In Warner, T. A., M. D. Nellis, G. Foody, Editors, *Handbook of Remote Sensing*, Chapter 20, 282-296, Sage Publication.
- Fang, H., and **S. Liang**, (2008), Leaf area index models, in *Encyclopedia of Ecology*, Sven Erik Jorgensen and Brian D. Fath (Ed.), Vol. 3, 2139-2148, Oxford:Elsevier.
- Liang, S.**, M. Schaepman, and M. Kneubuhler, (2008), Remote Sensing Signatures: Measurements, Modeling and Applications, in "*Advances in Photogrammetry, Remote Sensing and Spatial Information Science: 2008 ISPRS Congress Book*" Li, Z., J. Chen and M. Baltsavias, Editors, Chapter 10, Taylor & Francis Group, London, ISBN 978-0-415-47805-2, 127-143.
- Liang, S.**, (2008), Recent Advances in Land Remote Sensing: An Overview, Chapter 1, in S. Liang (Ed.), *Advances in Land Remote Sensing: System, Modeling, Inversion and Application*, Springer, ISBN 978-1-4020-6449-4, page 1-6.

- Liang, S. M.** Schaepman, T. Jackson, D. Jupp, X. Li, J. Liu, R. Liu, A. Strahler, J. Townshend, and D. Wickland, (2008), Emerging issues in land remote sensing, Chapter 19, in S. Liang (Ed.), *Advances in Land Remote Sensing: System, Modeling, Inversion and Application*, Springer, ISBN 978-1-4020-6449-4, page 485-494.
- Sun, W., & **S. Liang**, (2008), Methodologies for mapping plant functional types. In S. Liang (Ed.), *Advances in Land Remote Sensing: System, Modeling, Inversion and Application*, Springer, 369-393.
- Liang, S.** and Qin, J., (2008), Data assimilation methods for land surface variable estimation. In Liang, S., editor, *Advances in Land Remote Sensing: System, Modeling, Inversion and applications*: Springer, 319-339.
- Liang, S.**, (2004), Canopy and soil radiative transfer modeling, in *Reflection Properties of Vegetation Canopy and Soil with a BRDF Database* (ISBN 3-89685-565-4), M. Schonermark (editor), Wissenschaft und Technik Verlag, 71-78.
- Liang, S.** and H. Fang, (2004), Applications of multiangle measurements, in *Reflection Properties of Vegetation Canopy and Soil with a BRDF Database*, M. Schonermark (editor), Wissenschaft und Technik Verlag, 243-258.
- Radhakrishnan, J., **S. Liang**, J. R. Teasdale and C. J. Shuey, (2002), Remote sensing of weed canopies. In *From Laboratory Spectroscopy to Remotely Sensed Spectra of Terrestrial Ecosystems*, R. S. Muttiah (editor), Kluwer Academic Publishers, 175-202.

b. Articles in Refereed Journals:

Accepted:

Wang, K., R. Dickinson, **S. Liang**, Global Atmospheric Evaporative Demand over Land from 1973 to 2008, *Journal of Climate*

Jiang, B., **S. Liang**, J. Townshend, Z. Dodson, Assessment of the radiometric performance of Chinese HJ-1 satellite CCD instruments, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*

Li, X., **S. Liang**, G. Yu, W. Yuan, et al. Estimation of Evapotranspiration over the Terrestrial Ecosystems in China. *Ecohydrology*

Ren, H., **S. Liang**, G. Yan, J. Cheng, Empirical Algorithms to Map Global Broadband Emissivities over Vegetated Surfaces, *IEEE Transactions on Geosciences and Remote Sensing*

Wu, H., X. Zhang, **S. Liang**, G. Zhou, H. Yang, Estimation of Clear-sky Land Surface Longwave Radiation from MODIS Data Products by Merging Multiple Models, *Journal of Geophysical Research-Atmosphere*

Published:

Xiao, Z., J. Wang, **S. Liang**, H. Zhou, X. Li, L. Zhang, Z. Jiao, Y. Liu, Z. Fu, (2012), Retrieval of leaf area index from MODIS time series data: Examples from the Heihe River Basin, North-west China, *International Journal of Remote Sensing*, 33(3):730-745

Huang, G., S. Liu, **S. Liang**, (2012), Estimation of net surface shortwave radiation from MODIS data, *International Journal of Remote Sensing*, 33(3): 804–825

Fang, H., S. Wei, **S. Liang**, (2012), Validation of MODIS and CYCLOPES LAI products using global field measurement data, *Remote Sensing of Environment*, 119:43-54

He, T., **S. Liang**, D. Wang, H. Wu, Y. Yu, J. Wang, (2012), Estimation of Surface Albedo and Directional Reflectance from Moderate Resolution Imaging Spectroradiometer (MODIS) Observations, *Remote Sensing of Environment*, 119:286-300

Qin, J., K. Yang, **S. Liang**, W. Tang, (2012), Estimation of daily mean photosynthetically active radiation under all-sky conditions based on relative sunshine data, *Journal of Applied Meteorology and Climatology*, 51(1):150-160

Cai, L., Y. Qui, L. Zhang, **S. Liang**, and J. Wang, (2012), Estimating time-series leaf area index based on recurrent nonlinear autoregressive neural networks with exogenous inputs, *International Journal of Remote Sensing*, 33(8), 5712-5731

Wu, H., **S. Liang**, L. Tong, T. He, Y. Yu, (2012), Bidirectional Reflectance for Multiple Snow-covered Land Types from MISR Products, *IEEE Geoscience and Remote Sensing Letters*, 9(5):994-998, DOI: 10.1109/LGRS.2012.2187041

Yao, Y., **S. Liang**, Q. Qin, K. Wang, S. Liu, S. Zhao, N. Zhang, H. Dong, (2012), Satellite detection of the increases in global land surface evapotranspiration during 1984-2007, *International Journal of Digital Earth*, 5, 299-318

Li, A. **S. Liang**, A. Wang, C. Huang, (2012), Investigating the Impacts of North Atlantic Oscillation on Global Vegetation Changes by Remotely Sensed Vegetation Index, *International Journal of Remote Sensing*, 33(22): 7222-7239.

Yuan, W., S. Liu, **S. Liang**, Z. Tan, H. Liu, C. Young, (2012), Estimations of Evapotranspiration and Water Balance with Uncertainty over the Yukon River Basin, *Water Resources Management*, 26(8): 2147-2157, DOI: 10.1007/s11269-012-0007-3

Yuan, W., **S. Liang**, S. Liu, E. Weng, Y. Luo, D. Hollinger, H. Zhang, (2012), Improving Model Parameter Estimation using Process Relationships between vegetation production and ecosystem respiration, *Ecological modeling*, 240:29-40

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- Sun, L., Sun, R., Li, X., **Liang, S.**, & Zhang, R. (2012). Monitoring surface soil moisture status based on remotely sensed surface temperature and vegetation index information. *Agricultural and Forest Meteorology*, 166-167, 175-187
- Bateni, S. M., **S. Liang**, (2012), Estimating surface energy fluxes using a dual-source data assimilation approach adjoined to the heat diffusion equation, *Journal of Geophysical Research*, 117, D17118, doi:10.1029/2012JD017618
- Zhang, Y., Y. Qu, J. Wang, **S. Liang**, (2012), Estimating leaf area index from MODIS and surface meteorological data using a dynamic Bayesian network, *Remote Sensing of Environment*, 127:30-43
- Cheng, J., **S. Liang**, Y. Yao, and X. Zhang, (2012), Estimating the optimal broadband emissivity spectral range for calculating surface longwave net radiation, *IEEE Geoscience and Remote Sensing Letters*, 10(1):401-405
- Wang, K., R., Dickinson, M. Wild, and **S. Liang**, (2012), Atmospheric Controls on Climatic Variability of Surface Incident Solar Radiation, *Atmospheric Chemistry and Physics*, 12, 9581-9592
- Zhu, X., S. Liang, Y. Pan, (2012), Observational Evidence of the Cooling Effect of Agricultural Irrigation in Jilin, China, *Climatic Change*, 114:799-811, DOI 10.1007/s10584-012-0435-3
- Qin, J., K. Yang, **S. Liang**, H. Zhang, Y. Ma, X. Guo, (2011), Evaluation of surface albedo in GEWEX-SRB and ISCCP-FD data against validated MODIS product over the Tibetan Plateau, *Journal of Geophysical Research*, 116, D24116
- Xiao, Z., **S. Liang**, J. Wang, and B. Jiang, (2011), Real-time inversion of leaf area index from MODIS time series data, *Remote Sensing of Environment*, 115(1):97-106
- Fang, H., **S. Liang**, G. Hoogenboom, (2011), Integration of MODIS LAI and vegetation index products with the CSM–CERES–Maize model for corn yield estimation. *International Journal of Remote Sensing*, 32(4): 1039–1065
- Cheng, J., **S. Liang**, Q. Liu, X. Li, (2011), Temperature and emissivity separation from ground-based MIR hyperspectral data, *IEEE Transactions on Geosciences and Remote Sensing*, 49(4): 1473-1484
- Xu, T., S. Liu, **S. Liang**, & J. Qin, (2011), Improving Predictions of Water and Heat Fluxes by Assimilating MODIS Land Surface Temperature Products into Common Land Model, *Journal of Hydrometeorology*, 12:227-244.
- Galleguillos, M., F. Jacob, L. Prévot, P. Lagacherie, **S. Liang**, (2011), Mapping daily evapotranspiration over a Mediterranean vineyard watershed, *IEEE Geoscience and Remote Sensing Letters*, 8(1): 168-172
- Qin, J., Chen, Z., K. Yang, **S. Liang**, T. Wang, (2011), Estimation of monthly-mean daily global solar radiation based on MODIS and TRMM products, *Applied Energy*, 88(7): 2480-2489

Xu, T., **S. Liang**, S. Liu, (2011), Estimating turbulent fluxes through assimilation of geostationary operational environmental satellites data using ensemble Kalman filter, *Journal of Geophysical Research*, 116, D09109, doi:10.1029/2010JD015150

Yuan, W., Y. Luo, **S. Liang**, et al., (2011), Thermal adaptation of net ecosystem exchange, *Biogeosciences*, 8, 1453-1463

Zhu, X., **S. Liang**, Y. Pan, & X. Zhang, (2011), Agricultural irrigation impacts on land surface characteristics detected from satellite data products in Jilin Province, China. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 4(3):721-729

Huang, G., M. Ma, **S. Liang**, S. Liu, X. Li, (2011), A LUT-based approach to estimate surface solar irradiance by combining MODIS and MTSAT data, *Journal of Geophysical Research*, 116, D22201, doi:10.1029/2011JD016120

Wang, D., **S. Liang**, (2011), Integrating MODIS and CYCLOPES Leaf Area Index Products using Empirical Orthogonal Functions, *IEEE Transactions on Geosciences and Remote Sensing*, 49(5):1513-1519

Guang, J., Y. Xue, Y. Wang, Y. Li, L. Mei, H. Xu, **S. Liang**, J. Wang, L. Bai, (2011), Simultaneous determination of aerosol optical thickness and surface reflectance using ASTER visible to near-infrared data over land, *International Journal of Remote Sensing*, 32(22): 6961-6974

Zheng, T., **S. Liang**, (2011), A Bayesian Approach to Integrate Satellite Estimated Instantaneous Photosynthetically Active Radiation Product for Daily Value Calculation, *Journal of Geophysical Research*, 116, D15202, 18 PP., doi:10.1029/2010JD014642

Yiao, Y. **S. Liang**, Q. Qin, and K. Wang, S. Zhao, (2011), Monitoring Global Land Surface Drought Based on a hybrid Evapotranspiration Model, *International Journal of Applied Earth Observation and Geoinformation*, 13(3): 447-457

Cheng J., **S. Liang**, J. Wang, and X. Li, (2010), A Stepwise Refining Algorithm of Temperature and Emissivity Separation for Hyperspectral Thermal Infrared Data, *IEEE Transactions on Geosciences and Remote Sensing*, 48(3), 1588-1597.

Taberner, M., B. Pinty, Y. Govaerts, **S. Liang**, M. M. Verstraete, N. Gobron, J.-L. Widlowski, and S. Pinnock, (2010), Comparison of MISR and MODIS Land Surface Albedos: Methodology, *Journal of Geophysical Research – Atmosphere*, 115, D05101, doi:10.1029/2009JD012665

Wang, D., **S. Liang**, R. Liu, and Zheng, T., (2010), Estimation of daily-integrated PAR from sparse satellite observations: comparison of temporal scaling methods. *International Journal of Remote Sensing*, 31(6), 1661-1677, doi:10.1080/01431160903475407

Jiang, B., **S. Liang**, J. Wang, Z. Xiao, (2010), Modeling MODIS LAI Time Series Using Three Statistical Methods, *Remote Sensing of Environment*, 114:1432-1444. Doi:10.1016/j.rse.2010.01.026

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- Kim, H., **S. Liang**, (2010), Development of a New Hybrid Method for Estimating Land Surface Shortwave Net Radiation from MODIS Data, *Remote Sensing of Environment*, 114:2393-2402, doi: 10.1016/j.rse.2010.05.012
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- Liang, S.**, W. Kustas, G. Schaepman-Strub, X. Li, (2010), Impacts of climate change and land use changes on land surface radiation and energy budgets, *IEEE Journal of Special Topics in Applied Earth Observations and Remote Sensing*, 3(3):219-224.
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- Cheng, J., **S. Liang**, F. Weng, J. Wang, & X. Li, (2010), Comparison of Radiative Transfer Models for Simulating Snow Surfaces Thermal Infrared Emissivity, *IEEE Journal of Special Topics in Applied Earth Observations and Remote Sensing*, 3(3):323-336.
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- Wang, K., and **S. Liang**, C. Schaaf, and A. Strahler, (2010), Evaluation of MODIS land surface shortwave and visible albedo products at FLUXNET sites, *Journal of Geophysical Research*, 115, D17107, doi:10.1029/2009JD013101

Gui, S., **S. Liang**, and L. Li, (2010), Evaluation of Satellite-Estimated Surface Longwave Radiation Using Ground-Based Observations, *Journal of Geophysical Research*, 115(D18): D18214, doi: 10.1029/2009JD013635

Yiao, Y. **S. Liang**, Q. Qin, and K. Wang, (2010), Monitoring Drought over the Conterminous United States from MODIS and NCEP Reanalysis-2 Data, *Journal of Applied Meteorology and Climatology*, 49(8), 1665-1680

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Wang, K., R. E. Dickinson, and **S. Liang**, (2009), Clear Sky Visibility Has Decreased over Land Globally from 1973 to 2007, *Science*, 323, 1468-1470.

Wang, K., **S. Liang**, (2009), Estimation of Daytime Net Radiation from Shortwave Radiation Measurements and Meteorological Observations, *Journal of Applied Meteorology and Climatology*, 48:634-643.

Wang, W. & **S. Liang**, (2009), Estimating High-Spatial Resolution Clear-Sky Longwave Downwelling and Net Radiation over Land Surfaces from MODIS Data, *Remote Sensing of Environment*, 113:745-754.

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Wang, K., and **S. Liang**, (2009), Evaluation of ASTER and MODIS land surface temperature and emissivity products using long-term surface longwave radiation observations at SURFRAD sites, *Remote Sensing of Environment*, 113:1156-1165.

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Qin, J. **S. Liang**, K. Yang, I. Kaihotsu, R. Liu, and T. Koike, (2009), Simultaneous estimation of both soil moisture and model parameters using particle filtering method through the assimilation of microwave signal, *Journal of Geophysical Research*, 114, D15103, doi:10.1029/2008JD011358.

Xiao, Z., **S. Liang**, J. Wang, J. Song, & X. Wu, (2009), A temporally integrated inversion method for estimating leaf area index from MODIS data, *IEEE Transactions on Geosciences and Remote Sensing*, 47(8): 2536-2545

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Schroeder, T. A., R. Hember, N. C. Coops, and **S. Liang**, (2009), Validation of solar radiation surfaces from MODIS and reanalysis data over topographically complex terrain, *Journal of Applied Meteorology and Climatology*, 48:2441-2458.

Wan, H., J. Wang, **S. Liang**, and J. Qin, (2009), Estimating Leaf Area Index by fusing MODIS and MISR Data, *Spectroscopy and Spectral Analysis*, 29(11): 3106-3111.

Chen, Y., J. Wang, **S. Liang**, D. Wang, and B. Ma, (2009), Comparison of MISR and MODIS directional reflectance products, *Journal of Remote Sensing*, 13(5), 808-820

Xu, T., S. Liu, J. Qin, and **S. Liang**, (2009), Estimation of sensible and latent heat flux by assimilating MODIS LST products, *Journal of Remote Sensing*, 13(6),999-1019.

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Jin J., **S. Liang** and Y. Ma, (1986), Using color air-photos to compile a map of population density in Du-Kou City, *Journal of Nanjing University (Geography Edition)*, 7:96-102 (in Chinese).

d. Book Reviews, Other Articles, and Notes:

Liang, S. (2005), reviews on the book “Digital imaging and spectral techniques: applications to precision agriculture and crop physiology” edited by T. van Toai, D. Major, M. McDonald, J. Schepers, L. Tarpley, *Agricultural Systems*, 86:115-119.

Liang, S., and A. Strahler (1999), Summary of the International Forum on BRDF, *Earth Observer*, 11(1):27-33.

e. Other Professional Papers Presented:

Liang S., (1986), A new algorithm to draw isoline maps of surface roughness with raster data, *Proceedings of the First Symposium on Computer Cartography*, Science Press, Beijing, 225-228 (in Chinese).

f. Contracts and Grants:

Current

Liang, S. (PI), J. Townshend (Co-I), “Accessing Chinese Satellite data products for land applications”, NASA, \$660,000, 2009-2014

Liang, S. (PI), D. Wang (Co-I), “Characterizing Surface Energy Budget of Different Surface Types Under Varying Climatic Conditions From AVIRIS and Master Data”, NASA, \$516,237, 2012-2015

Liang, S. (PI), “Satellite land product validation and evaluation”, NOAA, \$238,000, 2009-2014

Liang, S. (PI), “JPSS land surface albedo”, NOAA, \$220,000, 2011-2013

Liang, S. (PI), “Determining the Albedo Trends Due to Land Cover Change and Disturbance”, USDA, \$121,528, 2012-2015

Liang, S. (UMD-PI), *Albedo and Bidirectional Reflectance Climate Data Records from NPP/VIIRS* Schaaf, PI; NASA; \$142,525, 2010-2013

Previous

Liang, S. (PI), “*Developing GOES-R land surface albedo product*”, NOAA, \$500,000, 8/2008-7/2012

Liang, S. (PI), S. Running, J. Townshend, and S. C. Tsay (Co-Is), “*Mapping high-resolution land surface radiative fluxes from MODIS*”, NASA, \$934,990, 11/2007-10/2011

Liang, S. (PI), J. Townshend (Co-I), “*Land Surface Thermal Infrared Emissivity Database Development and Modeling for Operational Weather Prediction and Climate Models*”, NOAA, \$414,126, 10/2007-9/2011

Schaaf, C. (PI), A. Strahler and **S. Liang** (Co-Is), “*Global land surface albedo and anisotropy products from MODIS and VIIRS for climate and vegetation studies*”, NASA, \$900,000, 12/2007-11/2011

Liang, S. (PI), J. Townshend and R. Dickinson, (Co-I), “*Improving Land Surface Products from Multiple EOS Sensors by Developing a Prototype Data Assimilation System*”, National Aeronautics and Space Administration (NASA), \$894,435, 4/2004 – 3/2008

Liang, S. (PI), S. Running, J. Townshend, and S. C. Tsay (Co-Is), “*Mapping High-Resolution Incident Photosynthetically Active Radiation product for the North American Carbon Program*”, NASA, \$667,357, Feb. , 2005 – Jan., 2008

Liang, S., (PI), “*Physical Measurements and Signatures in Remote Sensing*”, NASA, \$19,973, 2006-2008

Liang, S., (PI), S. C. Tsay, (Co-I), “*Producing High-Resolution Land Surface Incident PAR Product from Multiple Satellite Data*”, NASA, \$415,149, 2/2003 – 1/2007.

Liang, S., (PI), “*Assessment of Aerosol, Albedo, and Surface Type Environmental Data Records (EDRs) from VIIRS*”, NASA, sub-grant from BU to UMD for \$194,805, 2004-2007.

Dickinson, R. (PI), **Liang, S.** et al., (CO-I), “*Using MODIS Data to Characterize Climate Model Land Surface Processes and the Impacts of Land Use/Cover Change on Surface Hydrological Processes*”, NASA, \$1.8M, 2004-2007.

Justice, C. (PI), **Liang, S.**, et al. (Co-I), “*Information Delivery System to Monitor the World’s Agricultural Regions*”, NASA, \$750,000, 04/01/2003 – 03/30/2006.

Liang, S., (PI), “*Estimation of Biophysical Parameters from Remotely Sensed Data for Carbon Studies*”, NASA/JGCRI, \$48,479, 9/1/02-8/30/05.

Liang, S. (PI), “*Development & Analysis of Geographic Database Defining Organic Agroecosystems*,” U. S. Department of Agriculture (USDA), \$214,597, 09/30/99 - 08/31/04.

Liang, S., (PI), “*Deriving Land Surface Radiation and Biophysical Parameters from CHRIS Observations*”, data grant awarded by the European Space Agency (ESA), 2002-2004.

Liang, S., (PI), and J. Teasdale, (Co-I), “*Using ALOS Data for Agricultural Applications*”, data grant awarded by the Japanese Aerospace Exploration Agency (JAXA), 2002-2004.

Liang, S. (PI), C. Walthall and C. Daughtry, (Co-I), "*POLDER Land Surface Geophysical Parameter Validation & New Algorithm Development*," data Grant Award by the French Space Agency (CNES) and the NASA, 1999-2003.

Liang, S. (PI), F. Hummerich, C. Walthall, C. Daughtry and J. Morissette, (Co-I), "*EO-1 Validation and Evaluation for Agricultural Monitoring*," NASA, \$341,994, 3/1/1999 - 9/31/2003.

Dickinson, R., (PI), **Liang, S.** et al., (Co-I), “*Improving the Representation of Land in Climate Models by Application of EOS Observations*”, NASA, \$2.1M, 2000-2003.

Liang, S. (PI), C. Walthall and C. Daughtry, (Co-I), "*Validating MODIS/MISR Land Surface Reflectance and Albedo Products*," NASA, \$365,529, 10/1/97 - 09/30/02.

Prince, S. (PI), and **Liang, S.** (Co-I), “*Development of a Low-Cost Methods of Airborne Remote Sensing of Crops*”, State of Maryland, 3/1/02 – 11/30/02.

Liang, S. (PI), "*International Forum on BRDF*," NASA, \$14,993, 3/1/99 - 8/29/00.

Liang, S. (PI), "*Development of Graphics-based 3D Simulation Models*," Los Alamos National Laboratory, \$236,510, 09/01/96 - 09/30/99.

Liang, S. (PI), "*Radar Backscattering Modeling & Algorithm Development for Forest Parameters Retrieval from SAR Data*," NASA, \$196,725, 12/01/96 - 11/30/98.

Dubayah, R. (PI), and **Liang, S.** (Co-I) "*Topographic Effects on Solar Radiation and Remote Sensed Radiances*", NASA, \$172,033, 5/1/95-4/30/98.

h. Fellowships, Prizes, and Awards:

The “Rainmaker” of the University of Maryland: 2003-2010;

The 2008 Boeing Award for the Best Paper in Image Analysis and Interpretation by the America Society for Photogrammetry and Remote Sensing (ASPRS);

Invitational Fellowship for Research in Japan, Feb. 1 – April 30, 2002, Japan Society for the Promotion of Science (JSPS);

“Cun-Hui” Fellowship for research and teaching in China, 2001-2002, Chinese Ministry of Education;

Travel Award by the IEEE Geosciences and Remote Sensing Society for attending the 1997 *International Geosciences and Remote Sensing Symposium*, Singapore;

Senior member of the Institute of Electrical and Electronics Engineers (IEEE);

i. Editorships, Editorial Boards, and Reviewing Activities for Journals and Other Learned Publications:

Associate Editor (2001-), IEEE Transactions on Geosciences and Remote Sensing;

Co-editor (1999-2008), Geographic Information Sciences;

Member of the Editorial Board (2009-), Journal of Remote Sensing

Member of the Editorial Board (2009-), Journal of Resources and Ecology

Reviewer for the following journals:

Agricultural and Forest Meteorology
Applied Optics
Agronomy: Agriculture and Environment
Canadian Journal of Remote Sensing
IEEE Geoscience and Remote Sensing Letters
IEEE Transactions on Geosciences and Remote Sensing
International Journal of Geographic Information Systems
International Journal of Remote Sensing
Journal of Applied Meteorology
Journal of Geophysical Research - Atmosphere
Journal of Climate
Photogrammetric Engineering and Remote Sensing
Remote Sensing of Environment
Remote Sensing Reviews.

Reviewer of book manuscripts for the Wadsworth Publisher, WCB/McGraw-Hill Publisher, and John Wiley and Sons, Inc.

3. Teaching and Advising

a. Courses taught:

General (all 3 credits):

Fall, 1996: GEOG370 Principles of Cartography, (25 students)
Fall, 1997: GEOG370 Principles of Cartography, (50 students)
Fall, 1998: GEOG370 Principles of Cartography, (50 students)
Fall, 1999: GEOG371 Introduction to Computer Cartography, (55 students)
GEOG372 Introduction to Remote Sensing, (35 students)
Fall, 2003: GEOG371 Introduction to Computer Cartography, (75 students)
Fall, 2004: GEOG371 Introduction to Computer Cartography, (75 students)
Spring, 2005: GEOG398Q Introduction to Quantitative Methods for the Geographic and Environmental Sciences (8 students)
Fall, 2005: GEOG375 Introduction to Computer Cartography, (70 students)
Fall, 2007: HONR299x The Geography of China, (21 students)
Fall, 2009: GEOG398A The Geography of China, (25 students)
Spring, 2011: GEOG398A The Geography of China, (45 students)
Spring, 2012: GEOG398A The Geography of China, (39 students)

Specialized (all 3 credits):

Fall, 1995: GEOG605 Quantitative Spatial Analysis, (15 students)
Spring, 1996: GEOG481 Advanced Computer Mapping, (10 students)
GEOG788R: Physical Fundamentals of Remote Sensing, (15 students)

Fall, 1996: GEOG605 Quantitative Spatial Analysis, (20 students)
 Spring, 1997: GEOG471 Cartographic Design and Production, (8 students)
 GEOG481 Advanced Computer Mapping, (9 students)
 Fall, 1997: GEOG605 Quantitative Spatial Analysis, (10 students)
 Spring, 1998: GEOG471 Cartographic Design and Production, (6 students)
 GEOG481 Advanced Computer Mapping, (11 students)
 Spring, 1999: GEOG471 Advanced Computer Cartography, (23 students)
 Spring, 2000: GEOG471 Advanced Computer Cartography, (27 students)
 Fall, 2000: GEOG609C Land surface Characteristics from Remote Sensing (12)
 Fall, 2000: GEOG798 Selected Topics in Geography: Seminar series (48)
 Spring, 2001: GEOG471 Advanced Computer Cartography, (25 students)
 Fall, 2002: GEOG605 Quantitative Spatial Analysis, (20 students)
 Spring, 2003: GEOG471 Advanced Computer Cartography, (27 students)
 Spring, 2004: GEOG472 Advanced Remote Sensing, (55 students)
 Spring, 2006: GEOG606 Quantitative Spatial Analysis (10 students)
 Spring, 2006: GEOG778A Quantitative Remote Sensing (15 students)
 Spring, 2006: GEOG798 Selected Topics in Geography – Seminar series (1 credit) (27)
 Spring, 2007: GEOG606 Quantitative Spatial Analysis, (15 students)
 Spring, 2008: GEOG472 Remote Sensing: Digital Processing and Analysis, (35 students)
 Fall, 2009: GEOG798 Selected Topics in Geography – Seminar series (1 credit) (40)
 Spring, 2010: GEOG602 Introduction to Physical Geography (15)
 Fall, 2010: GEOG778A Physical Fundamentals of Land Remote Sensing (13 students)
 Fall, 2011: GEOG472 Remote Sensing: Digital Processing and Analysis, (50 students)
 Fall, 2012: GEOG472 Remote Sensing: Digital Processing and Analysis, (24 students)

b. Advising

Primary Advisor:

Graduated Master students:

Mirmelstein, J., MA., 2009, “Modeling Urban Growth in Metropolitan Washington, D. C.”;
 Jiang, B. (Beijing Normal University), MA, 2009, “Time Series Analysis of High-Level Land Products from Remote Sensing”;
 Zhong B., MA, 2006, “Validation of the Algorithm for Estimating Aerosol Optical Depths from MODIS Imagery”;
 Guo, Z., MA, 2005, “Neural Networks Method for Estimating Crop percentage from MODIS Data”;
 Russ, A., MA, 2003, “Assessing the Spatial Distribution of Phragmites Australia on a Mid-Atlantic Barrier Island”;
 Curry, T., MA, 2001, “Satellite Detection of Tree Line Change in the Northern Canadian Boreal Forest”;
 Morahan, A., MA, 2000, “Central Asian Arid and Semi-Arid Regions: The Relationship of Precipitation and NDVI”;
 Edwards, R., MA, 1999, “Creating Air Navigation Charts with Landsat Thematic Mapper”.

Graduated Ph.D students:

Xiufang Zhu, Ph.D, 2012, “The impact of agricultural irrigation on land surface characteristics and near surface climate in China”

Tao He, Ph.D, 2012, “Estimating land surface albedo from satellite data”

Bo Jiang, Ph.D, 2012, (co-advisor), “Determining the observational evidence for the impacts of changes in vegetation on near-surface climate over northern China”

Tongren Xu, Ph.D, 2011, (co-advisor), “assimilating land surface temperature from satellite data into land surface models for estimating turbulent fluxes”

Bo Li, Ph.D, 2011, (co-advisor), “Retrieval of surface net radiation from hyperspectral remotely sensed data”

Xiaotong Zhang, Ph.D, 2010, (co-advisor), “Estimation of incident solar radiation from satellite data”

Sheng Gui, Ph.D, 2010, (co-advisor), “Validating incident shortwave and longwave radiation satellite products”

Hongyi Wu, Ph.D, 2010 (co-advisor), “Assessing the impacts of snow on surface bidirectional reflectance”

Dongdong Wang, Ph.D, 2009, “Improving Satellite Leaf Area Index Estimation based on Various Integration Methods”

Dou, Y., Ph.D, 2008, “Developing the adjoint method of the Common Land Model” (co-advisor)

Kim, H., Ph.D, 2008, “Estimation of Land Surface Shortwave Radiation Budget from MODIS Data”

Wang, W., Ph.D, 2008, “Estimating Clear-Sky High Spatial Resolution Land Surface Longwave Radiation Budget Using MODIS and GOES Data”

Zheng, T., Ph.D, 2007, “Mapping photosynthetically active radiation (PAR) using multiple remote sensing data”;

Wan, H., Ph.D, 2007, “Estimation of land surface parameters from the combined multiple satellite data”; (co-advisor)

Qin, J., Ph.D, 2006, “Inversion of Land Surface Variables through Data Assimilation”; (co-advisor)

Han, L., Ph.D, 2006, “Validating the Estimated Energy Fluxes by Assimilating MODIS Products into Common Land Model”; (co-advisor)

Fang, H., Ph.D, 2003, “Improving the Estimation of Leaf Area Index from Multispectral Remotely Sensed Data”.

Current Ph.D students:

Xin Tao, starting from Fall 2009

Cory Carter, starting from Fall 2009

Yuzheng Zhang starting from Fall 2011 (co-advisor)

Qinqing Shi starting from Fall 2011

Yunfeng Cao starting from Fall 2012 (co-advisor)

Xiaona Chen starting from Fall 2012 (co-advisor)

Member of the graduate advisory committees in Geography:

Graduated Master students: M. Taylor (2000), N. Casey-McCabe (1999), T. Clark (1999), T. Simpson (1999), N. Pollack (1998), J. Savage (1998), and D. Shirey (1997);

Graduated Ph.D students: H. Wei (2011), J. Nagol (2010), A. Joseph (2010), K. Song (2009), L. Giglio (2006), D. Fleming (2005), C. Carter (2004), E. Brown De Colstoun (2001), M. Hansen (2002), C. Huang (1999);

Current Ph.D students: A. Anand, P. Ling, A. Marx, P. Noojipady, D. Song, P. Lin, H. Tang, J. Zhang, Z. Dobson, T. Chen, Q. Ying;

Member of graduate advisory committees outside of Geography:

University of Maryland Institute for Advanced Computer Studies (UMIACS): H. Fallah-Adl (Ph.D graduated in 1998) and Z. Zhang (Ph.D graduated in 2000);

Department of Natural Resource Sciences and Landscape Architecture : J. Radhakrishnan (Ph.D in 2000) and J. Froese (Ph.D in 2001);

Marine-Estuarine-Environmental Sciences Program: J. Healy (M.S. in 2001);

Department of Urban Planning: F. Zhang, current Ph.D student);

Department of Atmospheric and Oceanographic Sciences: Robert Levy (Ph.D, 2007), Brian Vant-Hull (Ph.D, 2007), Tianle Yuan (Ph.D, 2008), Bo Wang (Ph.D, 2008), Mitch Goldberg (Ph.D, 2008), Ruiyun Chen (Ph.D, 2009), Ninghai Sun (Ph.D, 2009), Feng Niu (Ph.D, 2010), Hye Lim Yoo (PD, 2012);

Department of Computer Sciences: Houman Alborzi (Ph.D, 2006), Edwin Jacox (Ph.D, 2006) and Mike Lee (Ph.D, 2006), Charles Cranston (Ph.D 2007).

iii other advising activities:

Internship Supervision: undergraduate students (Scott Goff, Erica Hafer, Jennifer Himmelstein, Sung-Hee Kim, Mark Plavnieks, Peter Torrieri);

Supervision of the following international visitors:

Dr. Yongtao Zhang, Natural Science Foundation of China, March 2003 – Feb. 2004;

Dr. Yanxia Zhao, Chinese Academy of Meteorological Sciences, March 15 – June 15, 2004;

Dr. Qinhou Liu, Institute of Remote Sensing Applications, Chinese Academy of Sciences, April 20 – June 20, 2004;

Mr. Ainong Li, Chengdu Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, April 1 – August 30, 2005;

Dr. Suha Berberoglu, Fulbright scholar from the University of Cukurova, Adana, Turkey, Oct. 15 – Dec. 15, 2005;

Mr. Jun Qin, Beijing Normal University, Sept. 15, 2005 – March 15, 2006;

Dr. Ronggao Liu, Institute for Geographic Science and Natural Resources Research, Chinese Academy of Sciences, March 1 – May 30, 2006.

Ms. Huawei Wan, Beijing Normal University, June 15 – Dec. 15, 2006

Ms. Juan Du, Beijing Normal University, Sept. 2007 - August 2008

Prof. Armando A. Apan, University of Southern Queensland, Australia, Jan.-June, 2008

Dr. Jie Cheng, Oct. 2009 –March, 2010

Dr. Zhongxin Chen, Nov. 2009 – Jan. 2010

Dr. Lin Lu, March 2011-Aug. 2011

4. Service

a. Professional

Offices and Committee memberships held in professional organization:

Co-Chair, International Society for Photogrammetry and Remote Sensing, Commission VII/WG1 on Fundamental Physics and Modelling (2004-2012);

Chairman of the IEEE Geosciences and Remote Sensing Society, Washington and North Virginia Chapter (Jan. 2000 - Dec. 2000).

Membership of Satellite Instrument Science Teams:

- Member (2007-2010), NASA Land Measurement Science Team
- Member (2004-2010), NASA MODIS Science Team
- Member (2004-2010), NASA ASTER Science Team
- Associate Member (2004-2014), NASA NPOESS Preparatory Program (NPP) Science Team
- Member (2008-2012), NOAA GOES-R Land Science Team
- Member (2004-2007), NASA MISR Science Team
- Member (1999-2003), NASA Earth Observer-1 (EO-1) Science Team
- Member (1997-2002), NASA Earth Observing System (EOS) Validation Team
- Member (2001-2003), France POLDER II Science Team
- Member (2002-2005), ESA (European Space Agency) CHRIS Science Team
- Member (2002-2007), Japan ALOS Science Team

Reviewing activities for agencies:

Grant Proposal Reviewer,
Department of Energy (DOE);
Institute of Remote Sensing Applications, Chinese Academy of Sciences
National Aeronautics and Space Administration (NASA);
National Science Foundation (NSF);
Los Alamos National Laboratory (LANL);
Natural Environment Research Council (NERC), UK;
Space Research Organization of the Netherlands (SRON), Netherlands;
University of Kuwait, Kuwait.

Grant Panel Reviewer,
NASA Terrestrial Ecology Review Panel, 2012
NASA Graduate Fellowship Review Panel, 2001
NASA New Investigator Program Review Panel, 2004

External reviewer of promotion cases,
University of Texas, 2005; Hunter College, 2007; York University, 2008; Swansea University, 2009;
Texas A&M University, 2009; University of Massachusetts, 2009; University of South Florida, 2011

International Activities not listed above:

External examiner of Ph.D students:

- Wageningen University, Netherlands
- Beijing Normal University, China
- Institute of Remote Sensing Applications, China
- Gujarat University, India

Adjunct professor of Chinese universities and research institutes:

- Beijing Normal University

- Institute of Geographical Sciences and Natural Resources Research, CAS
- Institute of Remote Sensing Applications, CAS
- Institute of Natural Resources & Regional Planning, the Chinese Academy of Agricultural Sciences

Organizer, *The 1st International Conference on Land Remote Sensing: Algorithms and Products*, May 30-June 1, 2012, Chengdu, China

Member of the Technical Program Committee, the *2012 IEEE International Geoscience and Remote Sensing Symposium (IGARSS'2012)*, July 22-27, 2012, Munich, German

Organizer, The 2nd *Summer School on Land Remote Sensing: Algorithms and Products*, July 5-10, 2012, Beijing Normal University, China

Member of the Scientific Committee, *The Second International Workshop on Earth Observation and Remote Sensing Applications (EORSA 2012)*, June 8-11, 2012, Shanghai, China

Organizer, The 1st *Summer School on Land Remote Sensing: Algorithms and Products*, July 10-15, 2011, Beijing Normal University, China,

Member, the Scientific Committee, the *3rd International Symposium on Recent Advances in Quantitative Remote Sensing*, Sept. 27- Oct. 1, 2010, Valencia, Spain

Co-Chair of the Scientific Committee & Chair of the Organizing Committee, *Workshop on Remote Sensing Inversion Algorithms*, July 11-12, 2010, Beijing Normal University, China

Organizer and co-Chair of the Scientific Committee, *The 2nd Summer School on Land Surface Observing, Modeling and Data Assimilation*, July 13-16, 2010, Beijing Normal University, China

Member, the Organizing Committee, *The 2nd International Workshop on Energy and Water Cycle over the Tibetan Plateau and High-elevations*, July 19-21, 2010, Lhasa, China

Member, the Organizing Committee, *The Fourth International Workshop on Catchment-scale Hydrological Modeling and Data Assimilation*, July 21-23, 2010, Lhasa, China

Co-Chair, the Scientific Committee & Oversea Organizer, *International Conference on Land Surface Radiation and Energy Budgets: Measurements, Modeling and Applications*, March 18-20, 2009. Beijing, China

Theme Coordinator and Session Organizer, the *2009 IEEE International Geoscience and Remote Sensing Symposium (IGARSS'2009)*, July 13-17, 2009, Cape Town, South Africa

Member of the Technical Program Committee, the *2008 IEEE International Geoscience and Remote Sensing Symposium (IGARSS'2008)*, July 7-11, 2008, Boston

Member of the Organizing Committee, A3.1 Terrestrial phenomena and land products from space: validation, application and perspectives, *37th Committee on Space Research (COSPAR) Assembly*, 13 - 20 July 2008, Montreal, Canada

Member of the Technical Program Committee, *The 15th International Conference on GEOINFORMATICS*, May 26-28, 2007, Nanjing, China

Member of the International Scientific Committee, the 10th *International Symposium on Physical Measurements and Signatures in Remote Sensing (ISPMSRS)*, March 12.-14. 2007, Davos, Switzerland

Member of the Organizing Committee, Workshop on: A Federated Approach for Improved Use of Environmental Information in China, Oct. 23-25, 2006, Beijing, China

Member of the Scientific Committee, the 2nd *International Symposium on Recent Advances in Quantitative Remote Sensing*, Sept. 25-29, 2006, Valencia, Spain

Member of the Technical Program Committee, the *2006 IEEE International Geoscience and Remote Sensing Symposium (IGARSS'2006)*, July 31-August 4, 2006, Denver, Colorado

Member of the Organizing Committee, A3.1 Terrestrial phenomena and land products from space: validation, application and perspectives, *36th Committee on Space Research (COSPAR) Assembly*, 16 - 23 July 2006, Beijing, China

Member of the Scientific Committee, the 4th *International Workshop on Multiangular Measurements and Modeling (IWMMM-4)*, March 20-24, 2006, Sydney, Australia

Chair of the International Scientific Committee, the 9th *International Symposium on Physical Measurements and Signatures in Remote Sensing (ISPMSRS)*, Oct. 17-19, 2005, Beijing, China

Member of the Technical Program Committee, the *IGARSS'2005*, July 25-29, 2005, Seoul, South Korea

Overseas organizer & Chair of the *International Workshop on Spatial Technologies Applied to Agriculture*, June, 2002, Beijing Normal University, Beijing, China;

Co-organizer & co-Chair of the *International Workshop on Remote Sensing and Earth System Science*, June 1999, Nanjing, China;

Organizer & Chair of the *International Forum on BRDF (Bidirectional Reflectance Distribution Function)*, Dec. 1998, San Francisco;

Manager of the electronic mailing list "*Remote Sensing of Environment*" (1996-present).

b. Campus

Departmental:

Chair, Full Professor Search Committee (2012)

Academic Director, Master of Professional Study in Geospatial Information Science (2007-2011)

Primary faculty Advisor for the undergraduate degree program: *Geographic Information Science and Computer Cartography* (1996 - 2005);

Chair of the ad hoc Committee on Developing the Masters Degree Program on Geographic Information Sciences (2004,2006-2007);

Chair of the APT Committee (2010)
Chair of the Graduate Committee (2010-2011)
Chair of the Teaching Committee (2006-2008);
Chair of the Faculty Search Committee (2005 - 2006);
Chair of the Undergraduate Committee (Sept. 2003 – May 2004);
Chair of the Diversity Committee (Sept. 2002 - May 2003);
Member of the Research Committee (2012)
Member of the Computing Task Force (2012)
Member of the MPS GIS Advisory Committee (2007-2012)
Member of the Departmental Chair Search Committee (2009)
Member of the Graduate Committee (1995-1996, 1999-2001, 2004-2008,2009-2011);
Member of the Undergraduate Committee (1995-2001, 2004-5);
Member of the Teaching Committee (1998-2001,2005-2008);
Member of the Diversity Committee (2001, 2003);
Member of the Facility Committee (1997, 2002, 2003);
Member of the ad hoc Computer System Manager Search Committee (1998);
Member of the ad hoc Faculty Search Committee (2001, 2004-2005);
Member of the ad hoc Ph.D Committee (2001);
Member of the ad hoc Committee on Committee (2001);
Member of the Merit Committee (1997, 1999, 2001, 2006).

University

Member of the Export Control Committee (2009-2012)
Steering Committee Member and Faculty Advisor for the campus-wide undergraduate degree program
"Environmental Sciences and Policy" with the concentration on "Environmental Mapping and Data
Management" (1998 – 2004)

Member of the Reviewing Panel of the graduate program on “Geographic Information System Specialty”,
College of Library and Information Service, 1998.

c. Service Awards and Honors

Certificate of “Appreciation for Notable Services and Contributions towards the Advancement of IEEE and
the Engineering Professions” by IEEE, 2002;

“Dedicated Leader and Chair” Award by the IEEE Washington Section and North Virginia Section in 2001
for serving the chair of IEEE Geosciences and Remote Sensing Society, Washington/North Virginia
Chapter (2000)

