

CURRICULUM VITAE

Hong-Bing Su

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EDUCATION

Ph.D. University of California, Davis, California, 1997, Atmospheric Science
M.Sc. Chinese Academy of Sciences, Beijing, China, 1992, Atmospheric Physics
B.Sc. Peking University, Beijing, China, 1989, Atmospheric Physics

EMPLOYMENT

8/03 – **Assistant Professor**, Department of Geography, East Carolina University, Greenville, NC.
7/01 – 8/03 **Associate member**, Faculty of the University Graduate School, Indiana University, Bloomington, IN.
7/00 – 8/03 **Assistant Scientist**, Department of Geography, Indiana University, Bloomington, IN.
9/98 – 6/00 **Postdoctoral Fellow**, Department of Geography, Indiana University, Bloomington, IN.
6/97 – 9/98 **Agricultural Research Coordinator II**, Department of Crop and Soil Sciences, University of Georgia, Georgia Experiment Station, Griffin, GA.
1/93 – 5/97 **Postgraduate Researcher**, Atmospheric Science Program, Department of Land, Air and Water Resources, University of California, Davis, CA.
1/94 – 3/96 **Teaching Assistant**, Atmospheric Science Program, Department of Land, Air and Water Resources, University of California, Davis, CA.
9/90 – 10/92 **Research Assistant**, Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing, China.

RESEARCH INTERESTS

Micrometeorology/Boundary-Layer Meteorology

Measurement and modeling (large-eddy simulation) of turbulent transport and diffusion processes inside and above vegetation and urban canopies, and in the atmospheric boundary layers.

Biometeorology/Agricultural-Forest Meteorology

Mechanism and process based modeling of ecosystem-atmosphere exchange of heat, water and carbon by coupling plant physiology (stomatal functioning), biochemistry of photosynthesis, radiation transfer processes, and atmospheric turbulent transport.

Remote Sensing/Land-Surface Processes

Integration of remote sensing and GIS of land surface properties and terrestrial ecosystems into coupled micrometeorological and bio-ecophysiological land-surface process models. Scaling-up ecosystem-atmosphere exchange from leaf to canopy to local/regional scales.

PUBLICATIONS

Peer-Reviewed Journal Articles

- [18] Su, H.-B., Schmid, H.P., Vogel, C.S., Curtis, P.S.: 2008, 'Effects of Canopy Morphology and Thermal Stability on Mean Flow and Turbulence Statistics Observed inside a Mixed Hardwood Forest', *Agricultural and Forest Meteorology*. In press.
- [17] Gough, C.M., Vogel, C.S., Schmid, H.P., Su, H.-B., Curtis, P.S.: 2008, 'Multi-Year Convergence of Biometric and Meteorological Estimates of Forest Carbon Storage', *Agricultural and Forest Meteorology*, **148**, 158-170.
- [16] Noormets, A., Desai, A.R., Cook, B.D., Euskirchen, E.S., Ricciuto, D.M., Davis, K.J., Bolstad, P.V., Schmid, H.P., Vogel, C.S., Carey, E.V., Su, H.-B., Chen, J.: 2008, 'Moisture sensitivity of ecosystem respiration: Comparison of 14 forest ecosystems in the Upper Great Lakes Region, USA', *Agricultural and Forest Meteorology*, **148**, 216-230.
- [15] Su, H.-B., Schmid, H.P., Grimmond, C.S.B., Vogel, C.S., Curtis, P.S.: 2008, 'An Assessment of Observed Vertical Flux Divergence in Long-Term Eddy-Covariance Measurements over Two Midwestern Forest Ecosystems', *Agricultural and Forest Meteorology*, **148**, 186-205.
- [14] Froelich, N.J., Schmid, H.P., Grimmond, C.S.B., Su, H.-B., Oliphant, A.J.: 2005, 'Flow Divergence and Density Flows above and below a Deciduous Forest. Part I: Non-Zero Mean Vertical Wind above Canopy', *Agricultural and Forest Meteorology*, **133**, 140-152.
- [13] Curtis, P.S., Vogel, C.S., Gough, C.M., Schmid, H.P., Su, H.-B., Bovard, B.D.: 2005, 'Respiratory Carbon Losses and the Carbon-Use Efficiency of a Northern Hardwood Forest, 1999-2003'. *New Phytologist*, **167**, 437-456.
- [12] Bovard, B.D., Curtis, P.S., Vogel, C.S., Su, H.-B., Schmid, H.P.: 2005, 'Environmental Controls on Sap Flow in a Northern Hardwood Forest'. *Tree Physiology*, **25**, 31-38.
- [11] Rocha, A.V., Su, H.-B., Vogel, C.S., Schmid, H.P., Curtis, P.S.: 2004, 'Photosynthetic and Water Use Efficiency Responses to Diffuse Radiation by an Aspen-Dominated Northern Hardwood Forest'. *Forest Science*, **50**, 793-801.
- [10] Oliphant, A.J., Grimmond, C.S.B., Zutter, H. N., Schmid, H.P., Su, H.-B., Scott, S. L., Offerele, B., Randolph, J. C., Ehman, J.: 2004, 'Heat Storage and Energy Balance Fluxes for a Temperate Deciduous Forest'. *Agricultural and Forest Meteorology*, **126**, 185-201.
- [9] Su, H.-B., Schmid, H.P., Grimmond, C.S.B., Vogel, C.S., Oliphant, A.J.: 2004, 'Spectral Characteristics and Correction of Long-Term Eddy-Covariance Measurements over Two Mixed Hardwood Forests in Non-Flat Terrain'. *Boundary-Layer Meteorology*, **110**, 213-253.

- [8] Schmid, H.P., Su, H.-B., Vogel, C.S., Curtis, P.S.: 2003, 'Ecosystem-Atmosphere Exchange of Carbon Dioxide over a Mixed Hardwood Forest in Northern Lower Michigan'. *Journal of Geophysical Research - Atmosphere*, **VOL. 108, NO. D14**, 4417, doi:10.1029/2002JD003011
- [7] Villani, M.G., Schmid, H.P., Su, H.-B., Hutton, J.L., Vogel, C.S.: 2003, 'Turbulence Statistics Measurements in a Northern Hardwood Forest', *Boundary-Layer Meteorology*, **108**, 343-364.
- [6] Su, H.-B., Shaw, R.H., Paw U, K.T.: 2000, 'Two-Point Correlation Analysis of Flow within and above a Forest from Large-Eddy Simulation'. *Boundary-Layer Meteorology*, **94**, 423-460.
- [5] Schmid, H.P., Grimmond, C.S.B., Cropley, F., Offerle, B., Su, H.-B.: 2000, 'Measurements of CO₂ and Energy Fluxes over a Mixed Hardwood Forest in the Midwestern United States'. *Agricultural and Forest Meteorology*, **103**, 355-373.
- [4] Su, H.-B., Shaw, R.H., Paw U, K.T., Moeng, C.-H., Sullivan, P.P.: 1998, 'Turbulent Statistics of Neutrally Stratified Flow within and above a Sparse Forest from Large-Eddy Simulation and Field Observations'. *Boundary-Layer Meteorology*, **88**, 363-397.
- [3] Su, H.-B., Paw U, K.T., Shaw, R.H.: 1996, 'Development of a Coupled Leaf and Canopy Model for the Simulation of Plant-Atmosphere Interaction'. *Journal of Applied Meteorology*, **35**, 733-748.
- [2] Paw U, K.T., Qiu, J., Su, H.-B., Watanabe, T., Brunet, Y.: 1995, 'Surface Renewal Analysis: A New Method to Obtain Scalar Fluxes'. *Agricultural and Forest Meteorology*, **74**, 119-137.
- [1] Su, H.-B., Hong, Z.-X.: 1994, 'An Experimental Study of Turbulence in Northern Suburban Surface Layer of Beijing'. *Chinese Journal of Atmospheric Science*, **18**, 405-416.

Book Chapter

- [1] Paw U, K.T., Snyder, R.L., Spano, D., Su, H.-B.: 2005, 'Surface Renewal Estimates of Scalar Exchange', *Micrometeorology in Agricultural Systems, Agronomy Monograph No. 47*, J.L. Hatfield and J.M. Baker, eds., American Society of Agronomy, Inc., Crop Science Society of America, Inc., Soil Science Society of America, Inc., Publishers. Madison, Wisconsin, USA, pp584.

Book Review

- [1] Su, H.-B.: 2006, 'In: Xuhui Lee, William Massman and Beverly Law, Editors, Handbook of Micrometeorology – A Guide for Surface Flux Measurement and Analysis vol. 29, Kluwer Academic Publishers, Atmospheric and Oceanographic Sciences Library (2004) (250 pp., ISBN 1-4020-2264-6(HB))', *Agricultural and Forest Meteorology*, **136**, 80-82.

Conference Presentations and Proceedings

- [27] Su, H.-B., Patton, E.G.: 2006, 'Large-Eddy Simulation of the Roughness Sublayer within and above Forest Canopies and Its Transition to the Outer Regions of the Atmospheric Boundary Layers'. American Meteorological Society *17th Symposium on Boundary Layers and Turbulence*, Paper No. J2.3, San Diego, CA.
- [26] Su, H.-B., Schmid, H.P., Vogel, C.S., Curtis, P.S.: 2006, 'Seasonal Variation of Turbulence Characteristics in and above a Mixed Hardwood Forest at the UMBS AmeriFlux Site'. American Meteorological Society *27th Conference on Agricultural and Forest Meteorology*, Paper No. 1.7, San Diego, CA.
- [25] Su, H.-B., Schmid, H.P., Grimmond, C.S.B., Vogel, C.S., Curtis, P.S.: 2004, 'Is Flux Divergence in the Tower Layer Important in Estimating Annual NEE Using Eddy-Covariance Measurements?'. Electronic Abstract in CD-ROM. American Meteorological Society *26th Conference on Agricultural and Forest Meteorology*, Paper No. 2.7, Vancouver, Canada.
- [24] Grimmond, C.S.B., Su, H.-B., Offerle, B., Crawford, B., Scott, S., Zhong, S., Clements, C.: 2004, 'Variability of Sensible Heat Fluxes in a Suburban Area of Oklahoma City', Proceedings of Symposium on Planning, Nowcasting, and Forecasting in the Urban Zone, and Eighth Symposium on Integrated Observing and Assimilation Systems for Atmosphere, Oceans, and Land Surface, American Meteorological Society, Seattle, WA.
- [23] Su, H.-B.: 2002, 'Large-Eddy Simulation of Diffusion from/to Line and Point Sources/Sinks inside a Forest'. Preprint, American Meteorological Society *15th Symposium on Boundary Layers and Turbulence*, 364-365, Wageningen, the Netherlands.
- [22] Su, H.-B., Grimmond, C.S.B.: 2002, 'Modeling the Local Climatology of Mixing Layer Heights over Two Midlatitude Hardwood Forests'. Preprint, American Meteorological Society *15th Symposium on Boundary Layers and Turbulence*, 520-523, Wageningen, the Netherlands.
- [21] Su, H.-B., Schmid, H.P., Grimmond, C.S.B., Vogel, C.S., Oliphant, A.J.: 2002, 'Spectral Analyses of Long-Term Eddy-Covariance Measurements over Hardwood Forests'. Preprint, American Meteorological Society *25th Conference on Agricultural and Forest Meteorology*, 75-76, Norfolk, VA.
- [20] Villani, M.G., Schmid, H.P., Su, H.-B.: 2002, 'Turbulence Statistics and Spectra in and above a Hardwood Forest Canopy for Lagrangian Stochastic Model Applications'. Preprint, American Meteorological Society *25th Conference on Agricultural and Forest Meteorology*, 18-19, Norfolk, VA.
- [19] Zutter, H.N., Grimmond, C.S.B., Oliphant, A.J., Schmid, H.P., Su, H.-B., Ciasto, L.: 2002, 'Convective Boundary Layer Development over a Mid-Latitude Deciduous Forest'. Preprint, American Meteorological Society *25th Conference on Agricultural and Forest Meteorology*, 134-135, Norfolk, VA.

- [18] Oliphant, A.J., Schmid, H.P., Grimmond, C.S.B., Su, H.-B., Scott, S., Vogel, C.S.: 2002, 'The Role of Cloud Cover in Net Ecosystem Exchange of CO₂, over Two Mid-Western Hardwood Forests'. Preprint, American Meteorological Society *25th Conference on Agricultural and Forest Meteorology*, 77-78, Norfolk, VA.
- [17] Ciasto, L., Grimmond, C.S.B., Zutter, H.N., Oliphant, A.J., Su, H.-B., Schmid, H.P.: 2002, 'Evaluation of Simple Method to Estimate Surface Heat Fluxes for a Midwestern Deciduous Forest, USA'. Preprint, American Meteorological Society *25th Conference on Agricultural and Forest Meteorology*, 183-184, Norfolk, VA.
- [16] Su, H.-B., Schmid, H.P., Grimmond, C.S.B., Vogel, C.S., Curtis, P.S.: 2000, 'Temporal and Spatial Variability of Mean Flow and Turbulent Characteristics over a Deciduous Forest'. Preprint, American Meteorological Society *14th Symposium on Boundary Layers and Turbulence*, 318-321, Aspen, CO.
- [15] Schmid, H.P., Su, H.-B., Vogel, C.S., Curtis, P.S.: 2000, 'Nighttime Turbulence Statistics and Trace Gas Exchange in a Mixed Deciduous Forest'. Preprint, American Meteorological Society *14th Symposium on Boundary Layers and Turbulence*, 555-558, Aspen, CO.
- [14] Su, H.-B., Schmid, H.P., Grimmond, C.S.B., Vogel, C.S., Curtis, P.S.: 2000, 'Correlation and Structure Function Analysis in the Quality Assessment of Long-Term Eddy-Covariance Measurement over a Deciduous Forest'. Preprint, American Meteorological Society *24th Conference on Agricultural and Forest Meteorology*, 215-216, Davis, CA.
- [13] Schmid, H.P., Grimmond, C.S.B., Cropley, F., Su, H.-B., Vogel, C.S., Curtis, P.S.: 2000, 'Variability of Energy Vapor and CO₂ Exchange over Two Midwestern Deciduous Forests'. Preprint, American Meteorological Society *24th Conference on Agricultural and Forest Meteorology*, 164-165, Davis, CA.
- [12] Grimmond, C.S.B., Schmid, H.P., Hanson, P.J., Wullschleger, S.D., Cropley, F., Su, H.-B., Offerle, B., Scott, S.: 2000, 'Ecosystem Evaporation, Transpiration and Sub-Canopy Vapor Fluxes at the Morgan Monroe State Forest, Indiana'. Preprint, American Meteorological Society *24th Conference on Agricultural and Forest Meteorology*, 138-139, Davis, CA.
- [11] Ehman, J.L., Schmid, H.P., Grimmond, C.S.B., Randolph, J.C., Wayson, C.A., Hanson, P.J., Cropley, F., Su, H.-B., Scott, S., Offerle, B.: 2000, 'A Preliminary Intercomparison of Micrometeorological and Ecological Estimates of Carbon Sequestration in a Mid-Latitude Deciduous Forest for 1998 and 1999'. Preprint, American Meteorological Society *24th Conference on Agricultural and Forest Meteorology*, 140-141, Davis, CA.

- [10] Su, H.-B., Leclerc, M.Y.: 1999, 'Large-Eddy Simulation of Near-Field Mean Concentrations and Vertical Fluxes of Passive Tracers Released from Infinite Crosswind Line Sources inside a Forest'. Preprint, American Meteorological Society *13th Symposium on Boundary Layers and Turbulence*, 535-538, Dallas, TX.
- [9] Su, H.-B., Leclerc, M.Y.: 1998, 'Large-Eddy Simulation of Tracer Footprints from Infinite Crosswind Line Sources inside a Forest'. Preprint, American Meteorological Society *23rd Conference on Agricultural and Forest Meteorology*, 388-391, Albuquerque, NM.
- [8] Su, H.-B., Paw U, K.T., Shaw, R.H., Moeng, C.-H.: 1998, 'Large-Eddy Simulation of Pressure-Gradient-Velocity Covariance and Its Parameterization within and above a Forest'. Preprint, American Meteorological Society *23rd Conference on Agricultural and Forest Meteorology*, 229-232, Albuquerque, NM.
- [7] Su, H.-B., Shaw, R.H., Paw U, K.T.: 1997, 'Two-Point Correlation Analysis of Flow within and above a Forest from Large-Eddy Simulation'. Preprint, American Meteorological Society *12th Symposium on Boundary Layers and Turbulence*, 399-400, Vancouver, Canada.
- [6] Paw U, K.T., Vogt, R., Shaw, R.H., Hsiao, T., Moles, A., Su, H.-B., Yang, B.: 1997, 'Coherent Structures and Turbulent Statistics above and within Maize Plant Canopies: Observations, Analysis and Modeling'. Preprint, American Meteorological Society *12th Symposium on Boundary Layers and Turbulence*, 391-392, Vancouver, Canada.
- [5] Su, H.-B., Paw U, K.T., Shaw, R.H.: 1996, 'Development of a Coupled Leaf and Canopy Model for the Simulation of Plant-Atmosphere Interaction'. Preprint, American Meteorological Society *22nd Conference on Agricultural and Forest Meteorology*, J33-J35, Atlanta, GA.
- [4] Su, H.-B., Shaw, R.H., Paw U, K.T., Moeng, C.-H., Sullivan, P.P.: 1996, 'Modeling Forest-Atmosphere Interactions by Coupling a Large-Eddy Simulation with a Leaf and Canopy Model'. Preprint, American Meteorological Society *22nd Conference on Agricultural and Forest Meteorology*, J39-J40, Atlanta, GA.
- [3] Paw U, K.T., Su, H.-B., Charlevoix, D., Hsiao, T. C.: 1996, 'Testing of an Advanced Plant Physiological Leaf Model Linked with a Plant-Atmosphere Higher-Order Closure Turbulence Model for Response to Elevated CO₂ Concentration'. Preprint, American Meteorological Society *22nd Conference on Agricultural and Forest Meteorology*, J58-J59, Atlanta, GA.
- [2] Paw U, K.T., Su, H.-B., Braaten, D.A.: 1996, 'The Usage of Structure Functions in Estimating Water Vapor and Carbon Dioxide Exchange between Plant Canopies and the Atmosphere'. Preprint, American Meteorological Society *22nd Conference on Agricultural and Forest Meteorology*, J14-J15, Atlanta, GA.
- [1] Paw U, K.T., Su, H.-B.: 1994, 'The Usage of Structure Functions in Studying Turbulent Coherent Structures and Estimating Sensible Heat Flux'. Preprint, American Meteorological Society *21st Conference on Agricultural and Forest Meteorology*, 98-99, San Diego, CA.

EXTERANL RESEARCH PROJECTS

“Mass and Energy Exchange in a Northern Hardwood Ecosystem”, US Department of Energy, National Institute for Global Environmental Change. September 1, 2003 – August 31, 2006, Co-PI with P.S Curtis (The Ohio State University), H.P. Schmid (Indiana University), C.S. Vogel (University of Michigan Biological Station).

ECU subcontracts: (09/01/03-08/31/04: \$23,591), (09/01/04-08/31/05: \$26,867), (09/01/05-08/31/06: \$19,390)

"Forest-Atmosphere Exchange of CO₂ over a Mixed Hardwood Ecosystem in the Midwest", US Department of Energy, National Institute for Global Environmental Change, September 1, 2003 – August 31, 2006.

Co-PI with H.P. Schmid (Indiana University), C.S.B. Grimmond (Indiana University).

ECU subcontracts: (09/01/03-08/31/04: \$11,293), (09/01/04-08/31/05: \$7,745). (09/01/05-08/31/06: \$10,000)

INTERNAL UNIVERSITY GRANTS

“Enhancement of Innovative Instructional Facility for Atmospheric Science Education at East Carolina University”, Innovative Project, Faculty Information Technology Committee, 2004-2005. PI, \$26,186.

“Large-Eddy Simulation of Turbulent Transport and Diffusion in the Canopy Roughness Sublayer”, East Carolina University, Division of Research and Graduate Studies, 2006-2007 Research Development Grant Program Awards, July 1, 2006 – June 30, 2007. PI, \$24,614.

COURSES

GEOG 1250 The Water Planet (Fall 2003, Spring 2004, Spring 2008)

GEOG 2200 Weather & Climate (Spring 2004/2005/2007, Fall 2004/2005/2006/2007)

GEOG 3520 Dynamic Meteorology (Spring 2005/2007/2008)

GEOG 4510 Meteorological Instruments and Observations (Fall 2004/2005/2006/2007)

GEOG 4520 Boundary Layer Meteorology

GEOG 4530 Micrometeorology (Fall 2006)

GEOG 6510 Meteorological Measurement Systems (Fall 2004/2005/2006/2007)

GEOG 6520 Atmospheric Turbulence

GEOG 6530 Advanced Micrometeorology (Fall 2006)

UNDERGRADUATE ADVISEES

Ryan Kost (Fall 2004 – Spring 2005)

Daniel Henderson (Fall 2004 – Summer II 2006)

Stephen Williams (Spring 2005 – Spring 2007)

Jeffrey Jessen (Spring 2005 – Spring 2007)

Stephen Sanchagrin (Fall 2005 – Fall 2007)

Rebecca Slate (Spring 2006 – Present)

Mark Conway (Spring 2007 – Present)

Thaddeus Wester (Fall 2007 – Present)

OTHER TEACHING AND OUTREACH ACTIVITIES

- 2007-present Thesis committee member of Sol Wuensch, M.Sc., Department of Geography, East Carolina University.
- 2005 Invited Lectures – Foundation of Eddy-Covariance Methods. US-China Carbon Consortium (USCCC), Beijing, China.
- 2001-2004 Thesis committee member of Norma Froelich, M.Sc., Department of Geography, Indiana University, Bloomington, Indiana
- 2004 Guest Lectures on Boundary Layer Meteorology, Training Workshop sponsored by Southern Global Climate Change Program of USDA Forest Service, US-China Carbon Consortium (USCCC), March 18-19, 2004. The University of Toledo, College of Arts and Sciences, Department of Earth, Ecological and Environmental Sciences.
- 2003 Meteorological event coordinator for 2003 Indiana Science Olympiad State Tournament for high school and middle school students.
- 2001-2003 Evaluation of applications for graduate studies in the Atmospheric Science Program in the Department of Geography, Indiana University, Bloomington.
- 2002 Atmospheric Mentor of Christina Pippin (Ph.D. student supported by NSF Biosphere-Atmosphere Research & Training Program), Department of Evolution, Ecology & Organismal Biology, Ohio State University, Columbus, Ohio.
- 2002 Invited guest lecturer titled 'Research Methods in Meteorology and Climatology' in GEOG494 "Research Methods", an undergraduate course taught by Dr. Robert Schwartz, Department of Geography, Ball State University, Muncie, Indiana
- 2002 Meteorological event coordinator for Indiana Science Olympiad State Tournament for high school and middle school students.
- 2001 Thesis defense committee of Heidi Zutter, M.Sc., Department of Geography, Indiana University, Bloomington, Indiana
- 2001 Substitute lecturer in "Physical Meteorology", an undergraduate/graduate Geography course (304/532) taught by Dr. Hans Peter Schmid, Department of Geography, Indiana University, Bloomington
- 2001 Invited guest lecturer in "Atmospheric Data Analysis", an undergraduate/graduate Geography course (489/589) taught by Dr. Scott Robeson, Department of Geography, Indiana University, Bloomington
- 2001 Substitute lecturer in "Dynamic Meteorology", an undergraduate/graduate Geography course (431/531) taught by Dr. Hans Peter Schmid, Department of Geography, Indiana University, Bloomington
- 1999 Invited guest lecturer in "Micrometeorology", an undergraduate major course (METEO454) taught by Professor John Wyngaard, Department of Meteorology, Pennsylvania State University, University Park, Pennsylvania
- 1994–1996 Teaching assistant in the Laboratory of “Meteorological Instrumentation and Observations”, an Atmospheric Science major course taught by Professor Kyaw Tha Paw U, Atmospheric Science Program, Department of Land, Air and Water Resources, University of California, Davis, California.

INVITED RESEARCH PRESENTATION AND COLLOQUIUMS

- 2007 Measurements and Modeling of Atmospheric Turbulent Transport and Diffusion in and above Forest Canopies (Host: University of Houston, Department of Geosciences).
- 2005 Key Lessons in Eddy-Covariance Measurements (Host: USCCC Workshop, Beijing, China).
- 2004 Measurement and modeling of forest-ecosystem-atmosphere exchange of CO₂, water and energy (Host: Department of Biology, East Carolina University, Greenville, NC)
- 2003 Spatial and temporal variability of forest-ecosystem-atmosphere exchange of CO₂, water and energy: measurement and modeling (Host: Dept. of Earth & Atmospheric Sci., Purdue Univ., IN)
- 2002 Spatial and temporal variability of forest-ecosystem-atmosphere exchange of CO₂, water and energy: measurement and modeling (Host: Dept. of Geography, Ball State Univ., IN)
- 2002 Large-eddy simulation of turbulent transport and diffusion inside and above forest canopies (Host: DOE Pacific Northwest National Laboratory, Richland, WA)
- 2001 Measurements and modeling of forest-ecosystem-atmosphere exchange of CO₂, water and energy (Host: DOE Brookhaven National Laboratory, Upton, NY)
- 1999 Measurements and modeling of forest-ecosystem-atmosphere exchange of CO₂, water and energy (Host: Dept. of Meteorology, Penn State Univ., University Park, PA)

INTERNATIONAL JOURNAL REFEREE

- 1996 – Journal of Applied Meteorology
- 1999 – Journal of Geophysical Research–Atmosphere
- 2000 – Journal of the Atmospheric Sciences
- 2004 – International Journal of Biometeorology
- 2004 – Advances in Atmospheric Sciences
- 2005 – Agricultural and Forest Meteorology

COLLABORATORS AND OTHER AFFILIATIONS

Peter Curtis, C.S.B. (Sue) Grimmond, Monique Leclerc, Chin-Hoh Moeng, Andrew Oliphant, Edward (Ned) Patton, Kyaw Tha Paw U, Hans Peter Schmid, Roger Shaw, Peter Sullivan, Christoph Vogel.

PROFESSIONAL MEMBERSHIP

- 1993 – American Meteorological Society
- 1997 – AmeriFlux and FLUXNET
- 1998 – American Geophysical Union
- 2003 – Southeast Division of the Association of American Geographers