

**Prof. Dr. Hans Peter Schmid – Public Presentations (total 183)**

**Invited Presentations (67)**

- 2009 'Seeing the City for all the Buildings'. *Eighth Symposium on the Urban Environment, Timothy R. Oke Symposium*, American Meteorological Society, January 2009. Phoenix (USA) (H.P. Schmid)
- 'Climate change and air quality'. *6th Symposium on Environmental Allergy and Allergotoxicology: Climate change and allergy*, Helmholtz Zentrum München, January 2009, Munich-Neuherberg (Germany) (H.P. Schmid)
- 'Klimawandel – Klimaforschung am KIT' (Keynote). *KIT Jahrestag*, March 2009, Karlsruhe (Germany) (H.P. Schmid)
- 'Surface-atmosphere exchange over inhomogeneous terrain: seeing the forest for the trees' (Keynote). *Patterns in Soil-Vegetation-Atmosphere Systems - International Workshop*. Transregional Collaborative Research Centre 32. June 2009, Aachen (Germany) (H.P. Schmid)
- 'Klimawandel und Luftqualität'. *Rundgespräch "Bioaerosole und ihre Bedeutung für die Gesundheit"*, Bayerische Akademie der Wissenschaften, October 2009, Munich (Germany) (H.P. Schmid, R. Forkel, R. Knoche, P. Suppan)
- 'Climate Change – A Challenge for Forest Trees and Forest Ecosystems' (Keynote) *Workshop: Opportunities, challenges and limitations of genomics-based technologies in forest tree breeding and forest genetics*. Forest Research Institute of Baden-Wuerttemberg, Freiburg (Germany) (H.P. Schmid, D. Dragoni)
- 'Was bedeutet globaler Klimawandel für die Region?', Rotary Club Weilheim, July 2009, Polling (BY, Germany) (H.P. Schmid)
- 'Was bedeutet globaler Klimawandel für die Region?', Murnau Club, October 2009, Ohlstadt (BY, Germany) (H.P. Schmid)
- 2008 'Klimawandel - Lebenswandel: über die enge Verstrickung der Biosphäre mit der Atmosphäre', *Akademietagung Klima-Alarm*, Evangelische Akademie Baden, January 2008, Bad Herrenalb (Germany) (H.P. Schmid)
- 'Determining Biosphere-Atmosphere Exchange in Complex Terrain', *Keynote, ENTRANCE Kick-Off Workshop*, Institute for Atmospheric Physics, Chinese Academy of Sciences, March 2008, Beijing (China) (H.P. Schmid)
- 'The Year of the "Locust": Forest-Atmosphere CO<sub>2</sub> Exchange during an Emergence of Periodical Cicada', *Institutskolloquium*, Institute for Atmospheric and Climate Sciences (IAC-ETH), ETH-Zürich, April 2008, Zürich (Switzerland) (H.P. Schmid, D. Dragoni, C. Wayson, and C.S.B. Grimmond)
- 'Out of Kansas: Meaningful Turbulence Measurements in Non-Ideal Conditions', *Institutskolloquium*, Institute for Physics of the Atmosphere (IPA), Deutsche Luft- und Raumfahrt (DLR), May 2008, Oberpfaffenhofen (Germany) (H.P. Schmid and H.B. Su)
- 'Out of Kansas: Meaningful Turbulence Measurements in Non-Ideal Conditions' (Keynote). *Observing the Turbulent Atmosphere: Sampling Strategies, Technology and Applications*, Theme of the Year 2008 GEOPHYSICAL TURBULENCE PHENOMENA, National Center for Atmospheric Research, May 2008, Boulder (CO, USA) (H.P. Schmid and H.B. Su)
- 'The Year of the "Locust": Forest-Atmosphere CO<sub>2</sub> Exchange during an Emergence of Periodical Cicada', *Institutskolloquium*, Institute for Ecology, University of Innsbruck, June 2008, Innsbruck (Austria) (H.P. Schmid, D. Dragoni, C. Wayson, and C.S.B. Grimmond)
- 'Weg von Kansas - Turbulenzmessungen in nicht-idealem Terrain', *Institutskolloquium*, Forschungszentrum Karlsruhe, Inst. Meteorol. Klimaforschung, June 2008, Karlsruhe (H.P. Schmid and H.B. Su)

- 'UMBS Footprint Modeling Workshop', University of Michigan Biological Station, July 2008, Pellston (MI, USA) (H.P. Schmid)
- 'Atmosphere – Land Surface Interactions: Why do we Need Long-Term Observations?'. *TERENO Kick-Off Meeting*, September 2008, Berlin (H.P. Schmid)
- 'The Year of the "Locust": Forest-Atmosphere CO<sub>2</sub> Exchange during an Emergence of Periodical Cicada'. *ProcessNet/GDCh/DBG-Gemeinschaftsausschuss „Chemie, Luftqualität, Klima“*, October 2008, Garmisch-Partenkirchen (H.P. Schmid, D. Dragoni, C. Wayson, and C.S.B. Grimmond)
- 2007 'Biosphere-Atmosphere Exchange: An Overview'. *FLAIR 2007 - Field Laser Applications in Industry and Research*, September 2-7, 2007, Florence (Italy) (H.P. Schmid)
- 'Klimawandel: Was wir wissen – und was nicht', *DVPB Jahrestagung 07*, Evangelische Akademie Tutzing, Oktober 2007, Herrsching (Germany) (H.P. Schmid)
- 'Klimawandel: Was wir wissen – und was nicht', *Klimaschutz Tagung*, Europäische Kommission/Politische Akademie Tutzing, Dezember 2007, Tutzing (Germany) (H.P. Schmid)
- 2006 'Biosphäre-Atmosphäre Austausch von CO<sub>2</sub>: von der Messung zur kontinentalen Bilanz', *Seminar*, Institut für Atmosphärische Umweltforschung (IMK-IFU), Forschungszentrum Karlsruhe, April 2006, Garmisch-Partenkirchen (Germany). (H.P. Schmid)
- 'Biosphere-Atmosphere Exchange: from Flux Sites to Continental Scales', *Purdue Climate Change Research Center (PCCRC) Colloquium*, Purdue University, May 2006, West Lafayette (IN). (H.P. Schmid)
- 'Measurements and Modeling of Atmosphere-Biosphere Exchange', *IU Systems Research Seminar*, Computer Science Department, June 2006 (H.P. Schmid)
- 'From Boundary Layer Climates to Forest Meteorology - The Oke Legacy', *International Conference on Urban Climate (ICUC-6)*, June 2007, Göteborg (Sweden). (Schmid, H.P. and H.A. Cleugh)
- 'A marked pulse in annual gross ecosystem productivity: is it real or due to a bug?', *Research Seminar*, University of Michigan Biological Station (UMBS), July 2006, Pellston (MI). (H.P. Schmid, Dragoni, D., Wayson, C., Toriumi, R., and Grimmond, C.S.B.)
- 'Scaling Up of Carbon Exchange Dynamics from AmeriFlux Sites to a Super-Region in Eastern North America' *AmeriFlux Annual Meeting 2006*, October 2006, Boulder (CO). (Schmid, H.P., C.A. Wayson, G. Katul, R. Oren, K. Novick, W.M. Post, A.F. Rahman, and D. Sims)
- 'Thermotopographic Flows Below a Deciduous Forest in the Midwest', *AmeriFlux Annual Meeting 2006*, October 2006, Boulder (CO). (Froelich, N.J. and H.P. Schmid)
- 2005 'The North American Carbon Up-Scaling Project (NACP-NACUSP)', *AmeriFlux Annual Meeting 2005*, October 2005, Boulder (CO). (Schmid, H.P., C.A. Wayson, G. Katul, R. Oren, W.M. Post, and A.F. Rahman)
- 'Scaling up of Carbon Exchange Dynamics from AmeriFlux Sites to a Super-Region in Eastern North America', *Fluxnet-Canada Annual General Meeting*, February 24-27, 2005. Quebec City, PQ, Canada (Schmid, H.P., G. Katul, R. Oren, W.M. Post, and A.F. Rahman).
- 'The Importance of Comparing Apples to Apples: Matching MODIS to Flux Towers', January 10, 2005, *Department of Atmospheric Science*, Yonsei University, Seoul, South Korea.
- 'Sources of Uncertainty in Flux Measurements', January 12, 2005, *keynote address, HydroKorea Workshop*, Yonsei University/Forest Research Institute, Pochun-gun, Gunggi-do, South Korea.
- 2004 'Sources of Uncertainty in Flux Measurements', *AmeriFlux Annual Meeting 2004*, October 2004, Boulder (CO).
- 'Scaling up of Carbon Exchange Dynamics from AmeriFlux Sites to a Super-Region in the Eastern United States', *AmeriFlux Annual Meeting 2004*, October 2004, Boulder (CO).
- 'Measurements and Modeling of Atmosphere-Biosphere Interaction', January 2004, *Seminar in Experimental Atmospheric Physics, Institute for Atmospheric and Climate Science*, Swiss Federal Institute of Technology (ETH), Zürich, Switzerland.

- 2003 'Atmosphäre und Wald im Austausch: Herausforderungen und Resultate aus fünf Messjahren', January 2003, *Klimaseminar, Institute for Atmospheric and Climate Science*, Swiss Federal Institute of Technology (ETH), Zürich, Switzerland.
- 'Forest-Atmosphere Exchange: challenges and results from five years of observations', March 2003, *Lunchtime Seminar Series*, Dept. of Geography, University of Canterbury, Christchurch, NZ.
- 'Forest-Atmosphere Exchange of Carbon: a case for experimental science in a modelling world', May 2003, *Lunchtime Seminar Series*, School of Forestry, University of Canterbury, Christchurch, NZ.
- 'Micrometeorological Measurements at NACP Tier-3 Sites: *Physical Controls on Ecosystem-Atmosphere Exchange*', June 2003, North American Carbon Program – Tier 3 Workshop, USDA-Forest Service/ US-DoE-NIGEC/ University of New Hampshire, Portsmouth, New Hampshire, USA.
- 'Footprint Modeling and Upscaling', July 2003, Fluxnet Workshop on *Matching Upscaled Tower-Based Carbon Fluxes and Processes with MODIS-Based Remote Sensing Products and Downscaled Inversion Information*, Fluxnet, Tahoe City, California, USA.
- 'Land Surface-Atmosphere Exchange: a case for experimental science in a modeling world', September 2003, College of Atmospheric and Ocean Sciences, Oregon State University, Corvallis, Oregon, USA.
- 'Forest-Atmosphere Exchange at MMSF and UMBS: challenges and results from five years of observations', October 2003, National Institute for Global Environmental Change, joint Midwestern and South-central regional meeting. Indianapolis, IN, USA.
- 2002 'The Importance of Comparing Apples to Apples: Spatial Representativeness in Ecosystem Exchange Measurements', January 2002, *Environmental Science Seminar*, School of Public and Environmental Affairs, Indiana University. (together with C.A. Wayson and J.C. Randolph)
- 2001 'Forest-Atmosphere Exchange of CO<sub>2</sub>: Experimental challenges of seeing the forest for the trees', September 2001, *Dept. of Earth and Atmospheric Sciences*, Purdue University, West Lafayette, Indiana, USA.
- 'Forest-Atmosphere Exchange of CO<sub>2</sub>: Experimental challenges of seeing the forest for the trees', October 2001, *Institute for Atmospheric and Climate Science*, Swiss Federal Institute of Technology (ETH), Zürich, Switzerland.
- 'The Potential of Using the AmeriFlux Network of Continuous Surface-Atmosphere Exchange Observations for Improved Air Quality and Transport Modeling', *US Weather Research Program*, Prospectus Development Team 11 Meeting, 6-8 November 2001, Palm Springs, CA, USA1999 'Turbulence and Vegetation-Atmosphere Exchange Dynamics at the PROPHET and UMBS-AmeriFlux Site', December 1999, *Fall Meeting, American Geophysical Union*, San Francisco, CA. (together with H.-B. Su)
- 'Atmosphere – Biosphere Exchange: Results from two AmeriFlux Towers', August 1999, *Atmospheric Sciences*, University of British Columbia, Vancouver, Canada, (together with S. Grimmond, H.-B. Su, B. Offerle, F. Cropley, C. Vogel, J. Teeri, and P. Curtis)
- 'Atmosphere – Biosphere Exchange: Results from two AmeriFlux Towers', July 1999, *University of Michigan Biological Station (UMBS)*, Pellston, Michigan, (together with S. Grimmond, H.-B. Su, B. Offerle, F. Cropley, C. Vogel, J. Teeri, and P. Curtis)
- 'Biosphere - Atmosphere Exchange – or the Importance of Seeing the Forest Despite the Trees', March, 1999, *Department of Geography*, Indiana University, Bloomington, Indiana.
- 'Austausch zwischen Atmosphäre und Biosphäre - oder das Bestreben den Wald zu sehen, trotz all den Bäumen', February 1999, *Laboratory for Atmospheric Physics*, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland.
- 1997 'A Textural Approach to Aggregation of Momentum and Energy Fluxes over Patchy Terrain', October 24, Dept. of Earth and Planetary Sciences, Harvard University, Cambridge, MA.

- 'Regionally Representative Heat, Evaporation and CO<sub>2</sub> Exchange: Problems and their solutions', October 17, 1997, *Colloquium, Dept. of Geography*, The University of Illinois at Urbana-Champaign.
- 'Regionally representative values of CO<sub>2</sub> & H<sub>2</sub>O exchange over a forest: Problems and their solutions', October 10, 1997, *Seminar on Global Change and Terrestrial Ecosystems: Present, Past and Future, Depts. of Biological Sciences and Earth and Environmental Sciences*, The University of Illinois at Chicago.
- 'Turbulent Exchange of CO<sub>2</sub> over a Forest', October 8, 1997, *Colloquium, Dept. of Physics*, Indiana University, Bloomington, IN.
- 'The Morgan-Monroe State Forest CO<sub>2</sub> Flux Project', September 19, 1997, *Colloquium, Dept. of Geography*, Indiana University, Bloomington, IN. (together with C.S.B. Grimmond, R. Barthelmie, J. Johnston, S. Pryor)
- 'Sind Wälder der "missing sink" des Kohlenstoff Kreislaufs? Ein AmeriFlux Project', June 26, 1997, *Colloquium in Climate Sciences and Hydrology, Dept. of Geography*, ETH, Swiss Federal Institute of Technology, Zurich, Switzerland.
- 'Footprint/Source Area Modeling for Flux Measurements: The End of all Fetch Problems?', February 24, 1997, *Colloquium, Dept. of Earth and Planetary Sciences*, Harvard University, Cambridge, MA.
- 1996 'Global Climate Change: What we Know', Workshop *Global Climate Change: Scientific Uncertainties & Environmental implications*, Indiana University Bloomington, Oct. 3, 1996, Bloomington, Indiana.
- 'Die "footprint"-Methode: das Ende der "fetch"-Probleme bei der Messung von Spurengasflüssen?', Feb. 12, 1996, *Colloquium*, Max-Planck Institut für Chemie, Mainz, Germany
- 1995 'Austausch von Spurengasen über inhomogenem Gebiet', Dec. 7, 1995, *Kolloquium zur Klimatologie und Hydrologie*, ETH Zürich, Switzerland.
- 'Source Area / Footprint Modellierung: Ein Annäherungsversuch an das Problem der inhomogenen Grenzschicht', 1 June, 1995, *Seminar für Meso- und Mikrometeorologie*, Meteorologisches Institut der Universität München, Munich, Germany.
- 'Flux Aggregation over Inhomogeneous Terrain', 23 March, 1995, Dept. of Earth and Atmospheric Sciences, Purdue University, West Lafayette, Indiana, USA.
- 'Flux Aggregation over Inhomogeneous Terrain', 20 February, 1995, Dept. of Geography, Indiana University, Bloomington, Indiana, USA.
- 1994 'Flux Aggregation over Inhomogeneous Terrain', *Atmospheric Science Programme*, 15 September, 1994, Geography Dept., University of British Columbia, Vancouver, Canada.
- 1992 'Turbulente Austauschprozesse in der atmosphärischen Grenzschicht', Jan. 24, 1992, *Umweltphysik Seminar*, EAWAG, Dübendorf, Switzerland.
- 1991 'Turbulente Austauschprozesse über komplexen Oberflächen', *48. Deutscher Geographentag in Basel: Fachsitzung "Lokalklima und Raumplanung"*, Sept. 25, 1991.
- 1990 'Komplexität und Homogenität der Oberfläche als "Gretchenfrage" der Grenzschichtmeteorologie', *Physikalisch-Geographisches Kolloquium*, 11 January, 1990, Geogr. Inst. & VAW, Abt. Glaziologie, ETH.

### **Invited Conference Panelist, Session Chair or Discussion Group Leader (19)**

- 2009 *Eighth Symposium on the Urban Environment, Timothy R. Oke Symposium*, Symposium co-Convenor, American Meteorological Society, January 2009. Phoenix (USA) (J. A. Voogt and H. P. Schmid)
- 2006 *International Conference on Urban Climate (ICUC-6)*, Session Organizer: Session in Honour of Professor T.R. Oke's retirement, June 2007, Göteborg (Sweden).
- AmeriFlux Annual Meeting 2006*, Session Chair: Carbon Fluxes at Multiple Scales -Bottom-up Approaches, October 2006, Boulder (CO).

- 2005 *Annual Meeting, NACUSP (North-American Carbon Upscaling Project)*. Organizer. Indiana University, Bloomington, November 27-29, 2005.  
*Inaugural Lynton K. Caldwell Symposium on Environmental Science and Policy*. Faculty Expert Panelist. School of Public and Environmental Affairs, Indiana University, Bloomington (IN), April 18, 2005.
- 2004 *AmeriFlux Annual Meeting 2004*, Session Organizer: Uncertainties in Eddy-Covariance Flux Measurements, October 2004, Boulder (CO).  
*Europ. Geosciences Union 2004 General Assembly*, Session Chair: Air-Land Interactions, April 2004, Nice, France.
- 2003 *Amer. Geophys. Union 2003 Fall Meeting*, Session Chair: Estimating Terrestrial Carbon, Water, and Energy Fluxes From Site to Region II, December 2003, San Francisco, CA, USA.
- 2002 *Symposium: Environmental Science at IUB*, (supported by IU COAS), Organizer and Convener, May 8, 2002, Indiana University, Bloomington, IN.  
*Annual Meeting of the American Association of Geographers*; Organizer and Convener of three sessions on Surface-Atmosphere Interactions (I, II, III), March 20-23, 2002, Los Angeles, CA.  
Discussant; *AmeriFlux Workshop on Standardization of Flux Analysis and Diagnostics*, Corvallis, Oregon, August 2002.
- 2000 24<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Session Chair, August 14-18, 2000, Davis, CA. American Meteorological Society, Boston, MA.  
*Annual Meeting of the American Association of Geographers*; Organizer and Convener of three sessions on Biosphere-Atmosphere Exchange (I: Climate Change; II: Processes; III: Modeling and Phenology), April 5-8, 2000, Pittsburgh, PA.
- 1999 *Bridging the Climate Information Gap*; invited participant, September 29, Argonne National Laboratory, Argonne, IL.  
*Workshop on Issues of Nighttime Carbon Exchange, Local Divergence and Drainage Flow*, Organizer and Convener, April 29 – May 1, 1999, Indiana University, Bloomington, IN.
- 1998 *European Geophysical Society*, Session Chair (in OA10.1; OA10.2), 23rd General Assembly, April 20-24, 1998, Nice, France.  
*Second International FLUXNET Workshop*, Discussion Group Leader “Footprints and Regional Scaling”, June 3 to 5, 1998, Polson, MT.
- 1996 *Global Climate Change: Scientific Uncertainties & Environmental Implications*, invited panelist, Indiana University Bloomington, Oct. 3, 1996, Bloomington, Indiana.
- 1991 *Lokalklima und Raumplanung*, invited panelist, 48. *Deutscher Geographentag in Basel*, Sept. 25, 1991, Basel, Switzerland.

### Conference Presentations (97)

- 2009 'Urban climates and the urban surface: a review of T.R. Oke's contributions arising from conceptual representations of the urban surface' (Poster). *Eighth Symposium on the Urban Environment, Timothy R. Oke Symposium*, American Meteorological Society, January 2009. Phoenix (USA) (J. A. Voogt, S. Grimmond, S. Krayenhoff, S. M. Roberts, M. Roth, J. A. Salmond, and H. P. Schmid)  
'Gap-Filling for Latent Heat Fluxes by a Mechanistic Model'. *Europ. Geosciences Union*, 2009 General Assembly, April 2009, Vienna, Austria. (D. Dragoni, C.A. Wayson, J.C. Randolph, and H.P. Schmid)  
'Integrated Carbon Flux Analysis In A Mid-Latitude Deciduous Forest: The First 10 Years', *Europ. Geosciences Union*, 2009 General Assembly, April 2009, Vienna, Austria. (B. Deng, H.P. Schmid, and D. Dragoni)  
'The Year of the Locust: ecosystem carbon exchange during an emergence of periodical cicada'. ICDC-8 – International Carbon Dioxide Conference, Sept. 2009, Jena, Germany. (Schmid, H.P.; D. Dragoni; C.S.B. Grimmond; J.C. Randolph; and C.A. Wayson)

'In search of biotic and non-biotic drivers of NEP in forest ecosystem - or: Why is a decade of CO<sub>2</sub> exchange measurements not enough?' ICDC-8 – International Carbon Dioxide Conference, Sept. 2009, Jena, Germany. (Dragoni, D; H.P. Schmid; C.S.B. Grimmond; J.C. Randolph; and C.A. Wayson)

'Is the NEP of a deciduous forest responding to longer vegetative seasons?'. *AmeriFlux Annual Meeting*, October 2009, Washington, DC (USA) (D. Dragoni, H.P. Schmid, S. Grimmond, J.C., Randolph, and J.W. Munger)

2006 'A Mechanistic Model to Fill the Data Gaps in Water Vapor Flux', *Fall Meeting 2006*, American Geophysical Union, December 2006, San Francisco (CA). (Deng, B., H.P. Schmid, and C.S.B. Grimmond).

'Characterization of Transpiration in a Deciduous Forest of the US Midwest', *Fall Meeting 2006*, American Geophysical Union, December 2006, San Francisco (CA). (D. Dragoni, K. Caylor, and H.P. Schmid).

'Uncertainty of Annual net Ecosystem Productivity Estimated Using Eddy- Covariance Flux Measurements', *Fall Meeting 2006*, American Geophysical Union, December 2006, San Francisco (CA). (H.P. Schmid, D. Dragoni, C.S.B. Grimmond, and H.W. Loescher).

'Ecosystem Functional Convergence Models of Carbon and Water Cycling for use in Bottom-up Scaling Strategies', *Fall Meeting 2006*, American Geophysical Union, December 2006, San Francisco (CA). (K. Novick, G. Katul, H.P. Schmid, P. Stoy, and C. Wayson).

'Disturbance, Succession, and Forest Carbon Dynamics: a Large-Scale Manipulation at the University of Michigan Biological Station', *Fall Meeting 2006*, American Geophysical Union, December 2006, San Francisco (CA). (P.S. Curtis, C.S. Vogel, H.P. Schmid, and C.M. Gough).

'A comparison of CO<sub>2</sub> and sensible heat flux measurements from aircraft and tower-based platforms', *Fall Meeting 2006*, American Geophysical Union, December 2006, San Francisco (CA). (D.K. Martins and 12 others, incl. H.P. Schmid)

'A marked pulse in annual gross ecosystem productivity detected by E-C measurements in Indiana: is it real or due to a bug?'. 27th Conference on *Agricultural and Forest Meteorology*. Amer. Meteorol. Soc., May 2006, San Diego, CA. (H. P. Schmid, D. Dragoni, C. A. Wayson, R. Toriumi, and C. S. B. Grimmond)

'Seasonal Variation of Turbulence Characteristics in and above a Mixed Hardwood Forest Observed at the UMBS AmeriFlux Site'. 27th Conference on *Agricultural and Forest Meteorology*. Amer. Meteorol. Soc., May 2006, San Diego, CA. (H.-B. Su, H.P. Schmid, C. S. Vogel, and P. S. Curtis)

'Observations of canopy light penetration and net ecosystem exchange of CO<sub>2</sub> under different sky conditions in a mid-western mixed deciduous forest'. 27th Conference on *Agricultural and Forest Meteorology*. Amer. Meteorol. Soc., May 2006, San Diego, CA. (A.J. Oliphant, W. Rose, H.P. Schmid, and S. Grimmond)

'Scaling up of carbon exchange dynamics from AmeriFlux sites to a super-region in eastern North America' Europ. Geosciences Union 2006 General Assembly, April 2006, Vienna, Austria. (H.P. Schmid; Wayson, C.A.; Katul, G.; Oren, R.; Novick, K.; Post, W.M.; Rahman, F.; Sims, D.)

'On the "Do"s and "Don't"s of Footprint Analysis in Difficult Conditions'. iLEAPS Post-conference specialist workshop on "Flux Measurements in Difficult Conditions", Integrated Land Ecosystem – Atmosphere Processes Study/IGBP. Boulder, Colorado, USA, 26-28 Jan 2006 (H.P. Schmid)

'Flow Divergence and Thermotopographic Density Flows Above and Below a Deciduous Forest'. iLEAPS Post-conference specialist workshop on "Flux Measurements in Difficult Conditions", Integrated Land Ecosystem – Atmosphere Processes Study/IGBP. Boulder, Colorado, USA, 26-28 Jan 2006 (N.J. Froelich and H.P. Schmid)

- 'Scaling up of Carbon Exchange Dynamics from AmeriFlux Sites to a Super-Region in Eastern North America'. 1st iLEAPS Science Conference. Integrated Land Ecosystem – Atmosphere Processes Study/IGBP. Boulder, CO, USA, January 21-26 ([H.P. Schmid](#), C.A. Wayson, G. Katul, R. Oren, W.M. Post, A.F. Rahman,)
- 2005 'Matching of Flux Measurements and MODIS Landcover Types using Footprint Modeling Strategy' Annual Meeting, NACUSP (North-American Carbon Upscaling Project). Indiana University, Bloomington, November 27-29, 2005. ([H.P. Schmid](#), C.A. Wayson)
- 'The role of atmospheric scattering on canopy light penetration and net ecosystem exchange of CO<sub>2</sub> in a mid-western mixed deciduous forest'. Poster presentation; Amer. Geophys. Union 2005 Fall Meeting, December 2005, San Francisco, CA, USA (A.J. Oliphant, W. Rose, [H.P. Schmid](#), C.S.B. Grimmond)
- 'Response of Sap-Flow Measurements on Environmental Forcings'. Poster presentation; American Geophysical Union, 2005 Joint Assembly, New Orleans LA, May 23-27, 2005 (J.A. Howe, D. Dragoni, [H.P. Schmid](#))
- 'Water Vapor Storage Change in the Canopy-Air Space of a Tall Deciduous Forest'. Poster presentation; American Geophysical Union, 2005 Joint Assembly, New Orleans LA, May 23-27, 2005 (C.M. Wade, D. Dragoni, [H.P. Schmid](#))
- 2004 'Upscaling Fluxes from Tower to Landscape: Overlaying Flux Footprints on High Resolution (IKONOS) Images of Vegetation Cover'. 26<sup>th</sup> Conference on *Agricultural and Forest Meteorology*. Amer. Meteorol. Soc., August 2004, Vancouver, Canada. (Kim, J., Q. Guo, D. D. Baldocchi, M. Y. Leclerc, L. Xu, and [H. P. Schmid](#))
- 'In search of the 'typical' year of forest-atmosphere exchange'. 26<sup>th</sup> Conference on *Agricultural and Forest Meteorology*. Amer. Meteorol. Soc., August 2004, Vancouver, Canada. ([Schmid](#), [H.P.](#), Su, H.-B, Grimmond, C.S.B., Vogel, C., Dragoni, D.)
- 'Is Flux Divergence in the Tower Layer Important in estimating Annual NEE Using Eddy-Covariance Measurements?'. 26<sup>th</sup> Conference on *Agricultural and Forest Meteorology*. Amer. Meteorol. Soc., August 2004, Vancouver, Canada. (Su, H.-B, [H.P. Schmid](#), C.S.B. Grimmond, C.S. Vogel, P.S. Curtis)
- 'Should we correct nighttime CO<sub>2</sub> fluxes for advection?'. *Europ. Geosciences Union 2004 General Assembly*, April 2004, Nice, France. (Froelich, N.J.; [Schmid](#), [H.P.](#))
- 'Inverse modeling of isoprene sources and fluxes within a northern hardwood forest'. *Europ. Geosciences Union 2004 General Assembly*, April 2004, Nice, France. (Hutton, J.L.; Siqueira, M.B.; [Schmid](#), [H.P.](#); Katul, G.G.)
- 'A Simple Parameterisation for Flux Footprint Predictions'. *Europ. Geosciences Union 2004 General Assembly*, April 2004, Nice, France. (Kljun, N.; Calanca, P.; Rotach, M.W.; [Schmid](#), [H.P.](#))
- 'Matching carbon exchange products from MODIS to flux towers: are we comparing apples with apples?'. *Europ. Geosciences Union 2004 General Assembly*, April 2004, Nice, France. ([Schmid](#), [H.P.](#); Wayson, C.A.; Rahman, F.; Heinsch, F.A.; Running, S.)
- 'Sensitivity of modeled heat, water and carbon fluxes to AVHRR- and MODIS-derived biophysical land-surface parameters'. *Europ. Geosciences Union 2004 General Assembly*, April 2004, Nice, France. (Stöckli, R.; Vidale, P.L.; Rogiers, N.; [Schmid](#), [H.P.](#))
- 2003 'Ecosystem respiration in a northern mixed hardwood ecosystem: source dynamics and interannual variation'. North American Carbon Plan, all PI meeting. May 2003, Washington, D.C., USA. (P.S. Curtis, B.D. Bovard, C.S. Vogel, H-B. Su, and [H.P. Schmid](#))
- 'Matching MODIS Products to Flux Towers: the first step in bottom-up scaling'. Amer. Geophys. Union 2003 Fall Meeting, December 2003, San Francisco, CA, USA ([H.P. Schmid](#), C.A. Wayson, F.A. Heinsch, S.W. Running)
- 'Advection and Thermotopographic Flows Near A Flux Tower: Coupled or Not?'. Amer. Geophys. Union 2003 Fall Meeting, December 2003, San Francisco, CA, USA (N.J. Froelich, [H.P. Schmid](#))

- 'Contribution of Climatic variables to Seasonal and Interannual Variability in Net Ecosystem Exchange at Eight AmeriFlux Forest Sites'. Amer. Geophys. Union 2003 Fall Meeting, December 2003, San Francisco, CA, USA (D. Hui, Y. Luo, T. Xu, S. Wofsy, D. Baldocchi, H.P. Schmid, G. Katul, R. Monson, A. Goldstein, P. Curtis, D. Hollinger)
- 2002 'Relating Isoprene Concentration Profiles to Sources and Sinks in a Northern Hardwood Forest'. Gordon Research Conference on *Biogenic Hydrocarbons & The Atmosphere*, September 1-6, 2002, Queen's College, Oxford, UK (J.L. Hutton, H.P. Schmid, M.G. Villani, S.N. Pressley)
- 'Evaluation of a Simple Method to Estimate Surface Heat Fluxes for a Midwestern Deciduous Forest, USA'. 25<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorol. Soc., May 20-24, 2002, Norfolk (VA). (Ciasto, L., C.S.B. Grimmond, H.N. Zutter, A. Oliphant, H-B. Su, and H.P. Schmid)
- 'An investigation of advection and gully flows in complex forested terrain'. 25<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorol. Soc., May 20-24, 2002, Norfolk (VA). (Froelich, N. and H.P. Schmid)
- 'Comparing modeled and measured scalar concentration profiles in a northern hardwood forest'. 25<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorol. Soc., May 20-24, 2002, Norfolk (VA). (Hutton, J.L., H.P. Schmid, M.G. Villani, S.N. Pressley)
- 'The role of cloud cover in net ecosystem exchange of CO<sub>2</sub> over two mid-western mixed hardwood forests'. 25<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorol. Soc., May 20-24, 2002, Norfolk (VA). (Oliphant, A.J., H.P. Schmid, C.S.B. Grimmond, H.-B. Su, S.L. Scott, C.S. Vogel)
- 'On the spatial variability of biophysical factors and its influence on measured net ecosystem exchange over forest'. 25<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorol. Soc., May 20-24, 2002, Norfolk (VA). (Schmid, H.P., A.J. Oliphant, C.A. Wayson, and J.C. Randolph)
- 'Spectral analyses of long-term measurements of turbulent exchange over mixed hardwood forests'. 25<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorol. Soc., May 20-24, 2002, Norfolk (VA). (Su, H.-B., H.P. Schmid, C.S.B. Grimmond, C.S. Vogel, and A.J. Oliphant)
- 'Turbulence statistics and spectra in and above a hardwood forest canopy for Lagrangian stochastic model applications'. 25<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorol. Soc., May 20-24, 2002, Norfolk (VA). (Villani M.G., H.P. Schmid, and H.-B. Su)
- 'Convective boundary layer development over a midlatitude deciduous forest'. 25<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorol. Soc., May 20-24, 2002, Norfolk (VA). (Zutter, H.N., C.S.B. Grimmond, A.J. Oliphant, H.P. Schmid, H-B. Su, and L. Ciasto)
- 'How well does an eddy-covariance based estimate of annual net ecosystem exchange (NEE) represent the ecosystem?', *Annual Meeting of the American Association of Geographers*; March 20-23, 2002, Los Angeles, CA.
- 2001 'Seasonal and interannual variability of net ecosystem exchange of CO<sub>2</sub> over a mid-latitude deciduous forest', 26th Annual Meeting, *European Geophysical Society*, March 25-30, 2001, Nice, France, (together with C.S.B. Grimmond, F. Cropley, A.J. Oliphant, and S.L. Scott).
- 'On the influence of mesoscale circulations and drainage flows on measurements of net ecosystem exchange (NEE)', 26th Annual Meeting, *European Geophysical Society*, March 25-30, 2001, Nice, France, (together with N. Froelich).
- 'Energy fluxes and transport of trace gases in and over a northern hardwood ecosystem', 26th Annual Meeting, *European Geophysical Society*, March 25-30, 2001, Nice, France, (together with S. Pressley, J. Hutton, B. Lamb, H. Westberg, and H-B. Su).
- 'Application of a footprint model to a forest canopy', 26th Annual Meeting, *European Geophysical Society*, March 25-30, 2001, Nice, France, (together with M.G. Villani, and N. Kljun).



- 'Spatial representativeness and footprint climatology of CO<sub>2</sub> flux measurements over a mixed deciduous forest', 26th Annual Meeting, *European Geophysical Society*, March 25-30, 2001, Nice, France, (together with C.A. Wayson, and J.C. Randolph).
- 'Detecting background tropospheric ozone effects on net ecosystem CO<sub>2</sub> exchange in a mature northern hardwood forest', August 2001, *Ecological Society of America* workshop, Does Air Pollution Moderate Forest Ecosystem Response to CO<sub>2</sub>?, Madison, WI, (P.S. Curtis, H.P. Schmid, M.A. Carrol, T. Thornberry).
- 'Footprint Modeling for Vegetation Atmosphere Exchange Studies: A Review and Perspective', 2nd INTAS - Workshop: Numerical and Experimental Studies on Flux Footprints, Sept. 29 – Oct. 04, 2001, Castle Thurnau (near Bayreuth), Germany.
- 'Carbon and Energy Fluxes over two Mid-Latitude Deciduous Forests: Interannual and Latitudinal Variations', 2001 Fall Meeting, *American Geophysical Union*, Dec. 10-14, 2001, San Francisco, CA. (H.P. Schmid, C.S.B. Grimmond, A.J. Oliphant, H.-B. Su, C.S. Vogel, S.L. Scott, and P.S. Curtis)
- 'Seasonal Analysis of Spatial Variability in Radiation Components Over a Deciduous Mid-Latitude Forest', 2001 Fall Meeting, *American Geophysical Union*, Dec. 10-14, 2001, San Francisco, CA. (A.J. Oliphant, C.S.B. Grimmond and H.P. Schmid)
- 'Biometric and eddy-covariance based estimates of ecosystem carbon storage in five eastern North American deciduous forests'. *American Geophysical Union*, Dec. 10-14, 2001, San Francisco, CA, (P.S. Curtis, P.J. Hanson, P. Bolstad, C. Barford, J.C. Randolph, H.P. Schmid, and K.B. Wilson)
- 2000 'Variability of Energy, Vapor and CO<sub>2</sub> Exchange over two Midwestern Deciduous Forests', 24<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorolo. Soc., Aug. 14-18, 2000, Davis, CA. (together with C.S.B. Grimmond, F. Cropley, H.-B. Su, C.S. Vogel, and P.S. Curtis)
- 'Correlation and structure function analysis in the quality assessment of long-term eddy-covariance measurements over a deciduous forest', 24<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorolo. Soc., Aug. 14-18, 2000, Davis, CA. (together with H.-B. Su, H.P. Schmid, C.S.B. Grimmond, C.S. Vogel and P.S. Curtis)
- 'An intercomparison of micrometeorological and ecological estimates of carbon sequestration at the Morgan Monroe State Forest, Indiana', 24<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorol. Soc., Aug. 14-18, 2000, Davis, CA. (together with J.L. Ehman, C.S.B. Grimmond, J. C. Randolph, P. Hanson, F. Cropley, J. Belmont, C. Wayson, B. Offerle, S.Scott, and H.-B. Su)
- 'Ecosystem evaporation, transpiration and sub-canopy vapor fluxes at the Morgan Monroe State Forest, Indiana', 24<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorolo. Soc., Aug. 14-18, 2000, Davis, CA. (together with C.S.B. Grimmond, P. Hanson, S. Wullschlegler, F. D. Cropley, H. Su, B. Offerle, and S. Scott)
- 'Footprint Determination in Stable to Convective Stratification Using an Inverse 3D Lagrangian Particle Model', 24<sup>th</sup> Conference on *Agricultural and Forest Meteorology*, Amer. Meteorolo. Soc., Aug. 14-18, 2000, Davis, CA. (together with N. Kljun, P. de Haan, and M.W. Rotach)
- 'Spectral dependence of the correction for path-smoothing by 3-D anemometers', 14<sup>th</sup> Symposium on *Boundary Layers and Turbulence*, Amer. Meteorol. Soc., Aug. 7-11, 2000, Aspen, CO. (together with F. Cropley, F., and C.S.B. Grimmond)
- 'A Lagrangian footprint model for stratifications ranging from stable to convective', 14<sup>th</sup> Symposium on *Boundary Layers and Turbulence*, Amer. Meteorol. Soc., Aug. 7-11, 2000, Aspen, CO. (together with N. Kljun, M.W. Rotach)
- 'Nighttime Turbulence Statistics and Trace Gas Exchange in a Mixed Deciduous Forest', 14<sup>th</sup> Symposium on *Boundary Layers and Turbulence*, Amer. Meteorol. Soc., Aug. 7-11, 2000, Aspen, CO. (together with H.-B. Su, C.S. Vogel, and P.S. Curtis)
- 'Temporal and Spatial Variability of Turbulent Characteristics over A Deciduous Forest', 14<sup>th</sup> Symposium on *Boundary Layers and Turbulence*, Amer. Meteorol. Soc., Aug. 7-11, 2000, Aspen, CO. (together with H.B. Su, C.S.B. Grimmond, C.S. Vogel and P.S. Curtis)

- 'A comparison of nighttime CO<sub>2</sub> eddy-fluxes above canopy with forest floor chamber measurements', 25th Annual Meeting, *European Geophysical Society*, April 25-29, 2000, Nice, France, (together with H.-B. Su, C.S. Vogel, and P.S. Curtis)
- 'Interannual Variability of Energy, Vapor and CO<sub>2</sub> Exchange over a Mid-Latitude Deciduous Forest', 25th Annual Meeting, *European Geophysical Society*, April 25-29, 2000, Nice, France, (together with C.S.B. Grimmond, F. Cropley, and S. Scott)
- 'Measurement and modeling of forest atmosphere exchange and carbon sequestration at two AmeriFlux sites', 96th Annual Meeting, *Association of American Geographers*, April 5-8, 2000, Pittsburgh, PA, (together with C.S.B. Grimmond, F. Cropley, H.-B. Su, and C.S. Vogel)
- 'Evapotranspiration Rates at the Morgan Monroe State Forest AmeriFlux Site: A Comparison of Results from Eddy Correlation Turbulent Flux Measurements and Sap Flow Techniques', *15th Symposium on Hydrology*, Amer. Meteorol. Soc., January 10-14, Long Beach, CA. (together with C.S.B. Grimmond, P. J. Hanson, S.D. Wullschleger, and F. Cropley)
- 1999 'A preliminary intercomparison of micrometeorological and ecological estimates of carbon sequestration in a mid-latitude deciduous forest', *6<sup>th</sup> International Conference on Biometeorology*, International Society of Biometeorology, November 8-12, 1999, Sydney, AUS. (together with J.L. Ehman, C.S.B. Grimmond, P.J. Hanson, J.C. Randolph and F.D. Cropley)
- 'Footprint Modeling – the State of the Art', Joint Science Team Meeting (TCP, PER & NIGEC), US-Department of Energy, June 2-4, Indianapolis, IN.
- 'Influences of terrain inhomogeneities on turbulence measurements', 24th Annual Meeting, *European Geophysical Society*, April 26-30, 1999, The Hague, Netherlands, (together with M. Hierteis, J., Štekl, J., Čermák, J., Svoboda, and Th., Foken)
- 'Allocation of surface sources for elevated trace gas fluxes using “backward trajectory”-simulations', 13th Symp. on Boundary Layers and Turbulence, *Amer. Meteorol. Soc.*, January 11-15, 1999, Dallas, TX, (together with N. Kljun and M.W. Rotach)
- 1998 'A three-dimensional footprint model for inhomogeneous forest canopies', 23rd Conference on Agricultural and Forest Meteorology, *Amer. Meteorol. Soc.*, November 2-6, 1998, Albuquerque, NM, (together with M.W. Rotach and N. Kljun)
- 'Fluxes of latent heat, sensible heat and carbon dioxide above a mixed hardwood forest in southern Indiana', 23rd Conference on Agricultural and Forest Meteorology, *Amer. Meteorol. Soc.*, November 2-6, 1998, Albuquerque, NM, (together with B. Offerle, F. Cropley, H.B. Su, and C.S.B. Grimmond)
- 'Scaling up of Measured Fluxes from a Vegetation Stand to the Ecosystem Scale: a Footprint Based Methodology', 23rd General Assembly, *European Geophysical Society*, April 20-24, 1998, Nice, France.
- 'Large Eddy Simulation in Neutral Stratification Over an Inhomogeneous Vegetation Canopy', 23rd General Assembly, *European Geophysical Society*, April 20-24, 1998, Nice, France, (together with S.A. Issler, and M.W. Rotach).
- 'CO<sub>2</sub> Exchange in Mixed Hardwood Forests in the Midwestern United States: two AmeriFlux Projects', 23rd General Assembly, *European Geophysical Society*, April 20-24, 1998, Nice, France, (together with R. Barthelmie, P. Curtis, C.S.B. Grimmond, S. Pryor, and J. Teeri).
- 'AmeriFlux - the Carbon Flux Network of the Americas', 23rd General Assembly, *European Geophysical Society*, April 20-24, 1998, Nice, France, (together with D. Hollinger, and S. Wofsy).
- 'Is there a Blending Height over Urban Areas?', 94th Annual Meeting, *Association of American Geographers*, March 25-29, 1998, Boston, MA.
- 1997 'Heterogeneity and Spatial Intergration', 2nd Annual *AmeriFlux Meeting*, 28-29 October 1997, St.Louis, MO, NIGEC/DOE.
- 'Determination of z<sub>0</sub> and z<sub>d</sub> Accounting for Fetch: A Sensitivity Analysis for Urban Areas'. 12<sup>th</sup> Symposium on *Boundary Layers and Turbulence*, Vancouver, BC, Canada, Amer. Meteorol. Soc., (together with C.S.B. Grimmond)

- 'Source Area/Footprint Modeling over Sparse Savannah: How the Sensors Perceive the Tigerbush', 12<sup>th</sup> Symposium on *Boundary Layers and Turbulence*, Vancouver, BC, Canada, Amer. Meteorol. Soc., (together with C.R. Lloyd)
- 'How Meteorological Instruments See the Variability of Urban Areas', Annual Meeting, *American Association of Geographers*, April 5, 1997, Ft. Worth, Texas.
- 1995 'Austausch von Spurengasen zwischen Biosphäre und Atmosphäre in regionalem Massstab: ein Beitrag der Grenzschichtforschung zur Oekologie', Sept. 8, 1995, *Fachsitzung der Schweiz. Meteorol. Ges., Tagung der Schweiz. Akad. Naturwiss.*, St. Gallen, Switzerland.
- 'The Effect of a Controlled Surface Roughness Perturbation on the Spectral Characteristics of Turbulent Transfer', 11th Symposium on *Boundary Layers and Turbulence*, March 27-31, Charlotte, NC, Amer. Meteorol. Soc., (together with R. Mazzoni).
- 'Modelling the Sub Grid-Scale Aggregation of Surface Fluxes: The Effect of Surface Texture as a Second Order Roughness', 11th Symposium on *Boundary Layers and Turbulence*, March 27-31, 1995, Charlotte, NC, Amer. Meteorol. Soc., (together with D. Bünzli).
- 1994 'On the Contribution of Sub Grid-Scale Variations in the Surface Forcing to Modelled Atmospheric Fluxes', *GCIP/MAGS (GEWEX) Workshop on Scaling*, September 18-22, 1994, Victoria, Canada.
- 'Turbulent Exchange over Inhomogeneous Regions: The Effect of Surface Texture as a Second Order Roughness', *European Conference on the Global Energy and Water Cycle*, 18-22 July, 1994, The Royal Society, London. (together with D. Bünzli).
- 'Some Aspects of Experimental Design for Flux Measurement over Inhomogeneous Areas', XIX General Assembly, *European Geophysical Society*, 25-29 April, 1994, Grenoble, France, Europ. Geophys. Soc.
- 'The Response of Turbulence Spectra on a Controlled Surface Roughness Perturbation', XIX General Assembly, *European Geophysical Society*, 25-29 April, 1994, Grenoble, France, Europ. Geophys. Soc. (together with R. Mazzoni).
- 'A Textural Approach to the Sub Grid-Scale Parameterisation of the Surface Forcing', XIX General Assembly, *European Geophysical Society*, 25-29 April, 1994, Grenoble, France, Europ. Geophys. Soc. (together with D. Bünzli)
- 'On the Applicability of Common Dispersion Parameterisations in Stable Conditions', XIX General Assembly, *European Geophysical Society*, 25-29 April, 1994, Grenoble, France, Europ. Geophys. Soc. (together with C. Ammann)
- 1993 'Air Pollution Modelling in Switzerland - an Assessment', 4<sup>th</sup> *POLLUMET Workshop*, 16-17 December, 1993, Zurzach, Switzerland.
- 'Source Areas for Scalars and Scalar Fluxes', XVIII General Assembly, *European Geophysical Society*, 3-7 May, 1993, Wiesbaden, Germany, Europ. Geophys. Soc.
- 1990 'Spatial Variability of Energy Fluxes in Suburban Terrain', Workshop on *Physical, Chemical and Biological Processes in the Atmospheric Boundary Layer (XV General Assembly, Europ. Geophys. Soc.)*, 23-27 April, 1990, Copenhagen, Denmark, Europ. Geophys. Soc. (together with H.A. Cleugh, C.S.B. Grimmond and T.R. Oke)
- 1988 'On the Spatial Representativeness of Meteorological Measurements over Complex Terrain', *International Geographical Congress*, 19-23 August, 1988, Sydney, Australia, Intern. Geogr. Union.
- 'Estimating the Source Area of a Turbulent Flux Measurement over a Patchy Surface', 8<sup>th</sup> Symposium on *Turbulence and Diffusion*, 25-29 April, 1988, San Diego, U.S.A., Amer. Meteorol. Soc. (together with T.R. Oke)