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EDUCATION

- Ph.D. University of British Columbia, Vancouver, BC, Canada, 1984-88. Conferred - 1989.
Atmospheric Science Programme, Physical Geography (Climatology & Hydrology)
An evapotranspiration-interception model for urban areas.
- M.Sc. University of British Columbia, Vancouver, BC, Canada, 1981-83. Conferred - 1984.
Physical Geography (Climatology & Hydrology)
The suburban water balance: Daily, monthly & annual results from Vancouver, Canada.
- B.Sc (Hons.) University of Otago, Dunedin, New Zealand 1976-78, 1980. Physical Geography
B.Sc. 1978 Paper: *Streamflow source areas of the Owaka Catchment.* BSc (Hons)
1980 Dissertation: *Runoff from seasonal snow in the Fraser Catchment, Central Otago.*

EMPLOYMENT

- 2006- Professor and Chair of Physical Geography, Environmental Monitoring and Modelling Group,
Geography, King's College London, University of London, London, UK
- 2007- Adjunct Professor of Geography (Atmospheric Science Program), Indiana U, Bloomington, IN, USA
- 2001-06 Professor of Geography (Atmospheric Science Program), Indiana University, Bloomington, Indiana
- 2000-06 Affiliated Faculty, Russian and East European Institute, Indiana University.
- 1997-06 Adjunct (Associate) Professor, School of Public Environmental Affairs, Indiana University
- 1995-01 Associate Professor of Geography (Atmospheric Science Program), Indiana University
- 1989-95 Assistant Professor of Geography (Climate and Meteorology Program), Indiana University
- 1981-88 Teaching Assistant and Research Assistant, Geography, U British Columbia, Vancouver, BC, Canada
- 1980-81 Demonstrator & RA, Geography & Business Development Centre, U Otago, New Zealand
- 1978-79 Hydrologist, Otago Catchment Board, New Zealand
- 1977-78 Field Hydrology Assistant, Otago Catchment Board, New Zealand

ELECTION TO LEARNED SOCIETIES

- 2006 Fellow American Meteorological Society

AWARDS, HONORS AND DISTINCTIONS

- 2009 Helmut E. Landsberg Award, American Meteorological Society
Citation: 'For numerous important contributions that have greatly advanced urban meteorology and urban climate sciences, and for sustained and effective leadership that has energized the urban climate research community'
- 2008 Universitatis Lodzianis Amico Medal, University of Łódź, Poland
- 2007 Eminent Professor Visit Award, Dept Civil Engineering, Monash University, Australia
- 2006 *Doctor of Science Honoris Causa*, Göteborg University, Sweden
- 2002 Indiana University Trustees Teaching Award
- 1997 Indiana University Teaching Excellence Recognition Award
- 1994 Indiana University Outstanding Junior Faculty Award

1993 Indiana University Summer Faculty Fellowship (COAS)
 1990 Indiana University Summer Faculty Fellowship (RUGS)
 1985-87 University of British Columbia Graduate Fellowship
 1982 University of British Columbia Walter W. Jeffery Memorial Scholarship for Interdisciplinary Hydrology.

RESEARCH INTERESTS

- Micrometeorology and hydroclimatology of heterogeneous terrain, especially urban areas
- Measurement and modeling of energy and mass (water, and carbon dioxide) exchanges in areas of heterogeneous terrain (cities, forests and wetlands)
- Topics of particular interest: roughness, heat storage, evaporation, boundary layer growth, surface-atmosphere modeling, surface characterization

CURRENT POSITIONS IN PROFESSIONAL ORGANIZATIONS

2008- *Advances in Meteorology*, Editorial Board member
 2007-09 Co-chair, American Meteorological Society Annual Meeting 2009 Theme: 'Urban Weather and Climate'
 2007- *Agricultural and Forest Meteorology*, Editorial Board member
 2005- Lead, Expert Team 4.4, Urban and Building Climatology, World Meteorological Organization (WMO) Commission for Climatology (CCI)
 2001- *Journal of Applied Meteorology and Climatology*, Associate Editor

VISITING POSITIONS

2007 Visiting Professor, Dept Civil Engineering, Monash U, Australia
 2005 Visiting Scientist CSIRO Centre for Marine and Atmospheric Research, Pye Lab, Canberra
 2004 Visiting Scientist CSIRO Centre for Atmospheric Research, Pye Lab, Canberra, Australia
 2002, 2003 (2x) Visiting Professor, Earth Sciences Göteborg U, Göteborg, Sweden
 1997-98 Visiting Scientist CSIRO Land and Water, Pye Lab, Canberra, Australia
 1997, 2000 Visiting Lecturer Earth Sciences Göteborg U, Göteborg, Sweden

RESEARCH GRANTS (multiple amounts indicate multiple proposals and awards)

Principal Investigator (>\$2.03 million)

2008-10 UK Met Office P003174 *Variability of urban surface-atmosphere exchanges: evaluation of the UK Met Office JULES scheme* Total: £18,870 Studentship
 2008-09 UK Met Office P001550 *Urban Model Intercomparison Experiment* Total: £135,000
 2006-07 UK Met Office PB/0000018 *Dataset evaluation and model inventory for an urban model intercomparison experiment* Total: £50,000
 2005-06 Indiana Water Resources Research Center /US Geological Survey, US Dept Interior. *Characterizing hydrologic response in urbanizing watersheds in Indiana: Determination of changes in runoff coefficients* Total: \$29,501
 2005-06 Energy Coordinating Agency/ US Dept Health and Human Services *Cool Homes Program Impact Evaluation: Philadelphia* Total: \$38,677
 2003-07 US Dept Agriculture, Forest Service Cooperative Research Agreement Award 03-CA-11242343-082; 04-CA-11242343-124; 05-CA-11242343-115 *Carbon, water and heat eddy-covariance measurements in suburban, Baltimore, MD.* July 1, 2003- June 30, 2007, P1 \$10,000. P2 \$10,000 P3: \$10,502. Total; \$30,510
 2003-05 Defense Threat Reduction Agency/Dept Army/Dept Energy, *Joint Urban 2003 Oklahoma City*, \$163,416
 2002 ASTER *Integrating meteorological observations and remotely sensed data to model urban-atmosphere energy exchange* Data Acquisition. GRIMMOND, Offerle, Fortuniak. 12 Scenes
 2001-06 National Science Foundation BCS-0095284 (Geography and Regional Science & International Program on Central and Eastern Europe) *Measurement and Modeling of Local Scale Energy and Mass Exchanges in Urban Environments.* Total: \$210, 834

- 2000-05 US Dept Agriculture, Forest Service Cooperative Research Agreement
Award no: 00-CA-11242343-073; 01-CA-11242343-039; 02-CA-11232343-117 Northern Global Change
Research (September 1, 2000-August 31, 2005) *Development of an eddy-covariance site at Cub Hill,
Baltimore, MD. P1:\$20,041 P2: \$9750 P3: \$10,000. Total:\$39,791*
- 2000-03 NATO Collaborative Linkage Grant Award: 977460 *Local-Scale Surface-Atmosphere Energy Exchanges
in the City of Łódź, Poland. Co-Principal Investigators: K Klysik (Poland) and T Oke (Canada). Belgian
Francs BF 558,000*
- 1996-01 National Institute for Global Environmental Change, U.S. Dept Energy. *Measurements of fluxes and
concentrations of CO₂ in and over a Deciduous Forest in the Midwest. Co-Principal Investigators: HP
Schmid, S.C Pryor, and R.J. Barthelmie. Year 1: \$339,852, Year 2: \$314,741. Year 3: \$263,251. Total:
\$917,844*
- 1996-98 Indiana Dept Natural Resources, Division of Forestry. *Urban forests and Climate: development of a
database for Indianapolis. Co-Principal Investigator: C Souch, IUPUI. \$20,000*
- 1994-98 US Dept Agriculture, Forest Service Cooperative Research Agreement 23-925. *Surface resistances in
urban areas: Principal Investigator. Stage IV \$9,963 Stage III \$100,873 Stage II \$3,500 Stage I \$41,190.
Total:\$155,526*
- 1991-95 Southern California Edison, Principal Investigator. Total:\$306,537
Stage V: *Local scale evaporation from residential areas of Los Angeles Metropolitan Area: Coachella
Valley Fixed Tower Installation C4064902. \$46,166*
Stage IV: *Local scale evaporation from residential areas of Los Angeles Metropolitan Area: San Gabriel
and Coachella Valleys. C4044903 \$86,429*
Stage III: *Local scale evaporation from residential areas of Los Angeles Metropolitan area: San Gabriel
Valley (LAMA) above canopy flux measurement C4043909 \$110,000.*
Stage IIa,b. *Local scale evaporation from residential areas of Los Angeles Metropolitan area: Los
Angeles Metropolitan Area (LAMA) above canopy meteorological instrumentation and fixed tower
installation (a) C403301 \$40,000 (b) C4033001 \$3,942*
Stage I *Local scale evaporation from residential areas of Los Angeles Metropolitan areas C2052905.
\$20,000.*
- 1991-93 US Dept Agriculture, Forest Service Cooperative Research Agreement 23-546.
Total: \$84,990
Stage IV: *Calibration of Chicago Urban Forest Climate Project meteorological instrumentation. \$4,000*
Stage III: *Urban hydroclimate flux measurements, Chicago, Illinois \$25,000*
Stage II: *Preliminary investigation of data resources for urban hydroclimate and vegetation studies for
Chicago, Illinois \$11,010.*
Stage I: *Climatological observations for urban hydroclimate and vegetation studies \$44,980.*
- 1990-91 US Dept Agriculture, Forest Service Cooperative Research Agreement 23-526. *The effect of vegetation
on the hydroclimate of cities. Co-Investigators: G McPherson, U Arizona and TR Oke, U British
Columbia. \$12,000*
- 1990-91 National Science Foundation NSF SES-8921919 Geography & Regional Science, *Development and
evaluation of continuously weighing mini-lysimeters. Co-Principal Investigator: S Isard, U Illinois. IU:
\$18,956. Total: \$25,294*

Co-Principal Investigator (>\$14.25 million)

- 2008-11 European Commission Framework 7 FP7-ENV-2007-1 Megacities: Emissions, urban, regional and global
atmospheric pollution and climate effects, and integrated tools for assessment and mitigation
(MEGAPOLI) 212520 Alexander Baklanov (Danish Meteorological Institute, PI), Mark Lawrence (Max
Planck Institute for Chemistry in Mainz, Germany, PI) Spyros Pandis (U Patras, Greece, PI) GRIMMOND
(PI for KCL – with M Wooster, F Kelly, S Beevers) (3,399,000 €)
- 2008-11 European Commission Framework 7 FP7-ENV-2007-1 Sustainable urban planning decision support
accounting for urban metabolism (BRIDGE) 211345 Nektarios Chrysoulakis (Forth, Greece, PI)
GRIMMOND (PI for KCL – with M Wooster, F Kelly, S Beevers) (3,100,000 €)
- 2008 Investigation of the Urban Energy Exchanges of London, NERC Airborne Remote Sensing Facility and
Field Spectroscopy Facility, Overflights and Equipment loans (with M Wooster and J Voogt).

- 2007-10 National Institute for Global Environmental Change, U.S. Dept Energy *Ecosystem-Atmosphere Exchange of Carbon, Water and Energy over a mixed deciduous forest in the Midwest* HP Schmid, D Dragoni, CSB GRIMMOND, JC Randolph, JR White \$630,500.
- 2007-10 US National Science Foundation ATM-0710631 Influence of urbanization on weather in the arid Phoenix metropolitan area Co-PIs: S Grossman-Clarke, J Zehnder \$447,808 (US)
- 2006-10 Canadian Foundation for Climate and Atmospheric Sciences (CFCAS) *Environmental Prediction for Canadian Cities* Pls J Voogt & T Oke + 9 co-applicants (co-applicant) \$1,447,000 (CAD)
- 2005-06 Greater London Authority, *The Urban Heat Island in London*, Co-PIs: G McGregor, S. Belcher, J Hacker, S Kovats, J Salmond R Watkins, M Wooster £42,000
- 2005-07 National Institute for Global Environmental Change, U.S. Dept Energy. *Forest-Atmosphere Exchange of CO₂ over a Mixed Hardwood Ecosystem in the Midwest*. Co-Principal Investigators: HP Schmid, HB Su. Year 1: \$204,738 Year 2. Year 3
- 2004-09 National Science Foundation DEB Human Settlements as ecosystems: Metropolitan Baltimore from 1797-2100: Phase II PI S Pickett (+ 30 Co-PI) .Co- PI \$4,920,000
- 2002-05 National Institute for Global Environmental Change, U.S. Dept Energy. *Forest-Atmosphere Exchange of CO₂ over a Mixed Hardwood Ecosystem in the Midwest*. Co-Principal Investigators: HP Schmid, HB Su. Year 1: \$256,250 Year 2: \$236,353 Year 3: \$202,649 Total: \$695,252
- 2000-02 ESCOMPTE (Expérience sur Site pour COntreindre les Modèles de Pollution atmosphérique et de Transport d'Emissions: Field experiment to constraint models of atmospheric pollution and emissions transport). PATOMS (Programme Atmosphere et Ocean Multi-échelle) *Local-Scale Surface Energy Balance Measurements in Marseille, France during the ESCOMPTE field campaign* Co-Principal Investigators: J Noilhan (France), T Oke (Canada). French Francs 100,000
- 2000-02 PNTS (Programme National de Teledetection Spatiale). *Local-Scale Surface Energy Balance Measurements in Marseille, France during the ESCOMPTE field campaign*. Co-Principal Investigators: J Noilhan (France) T Oke (Canada) French Francs 50,000
- 1999-02 National Institute for Global Environmental Change, U.S. Dept Energy. *Measurements of fluxes and concentrations of CO₂ in and over a Deciduous Forest in the Midwest Stage II*. Co-Principal Investigator: HP Schmid
Year 1: \$206,938 Year 2: \$223,460 Year 3: \$194,239. Total: \$624,637
- 1998-04 National Science Foundation DEB 9714835. Human Settlements as ecosystems: Metropolitan Baltimore from 1797-2100 PI S Pickett (+12 others +20 Collaborators). \$4,200,000 + 1 yr extension funds. Collaborator then Co-PI
- 1997-98 Indiana University Intercampus Research Fund. *Post-fire regeneration of tropical forest remnants, Dominican Republic* Co-Principal Investigator: TS Brothers, IUPUI \$9998
- 1994-98 National Institute for Global Environmental Change, U.S. Dept Energy. The effect of variability in microclimate and regional climate on the productivity of neo-tropical migrant land birds in Midwestern Forests: Application to climate change scenarios. *Co-Principal investigators: DR Whitehead and SM Robeson*. Year 1 \$90,000. Year 2 \$153,423. Year 3: \$150,000. Total:\$393,423
- 1990-92 National Institute for Global Environmental Change, U.S. Dept Energy. *Climatic influences of land surface conditions in the Midwest United States*. Co-Principal Investigators: AM Carleton, IU and DR Easterling, IU/National Climatic Data Center \$84,972

TRAVEL AWARDS (excluding travel supported applied/provided for by others on my behalf)

- 2006 WMO to IAUC to support travel for four participants to ICUC6 \$10,863
- 2002 IU President's Council on International Programs International Projects and Activities Grant: Burkina Faso
- 2000 IU President's Council on International Programs International Projects and Activities Grant: Poland
- 1999 IU Overseas Conference Fund Travel Award (England IUGG)
- 1996 IU Overseas Conference Fund Travel Award (Germany ICUC)
- 1993 National Science Foundation / American Geophysical Union Travel Award (Japan IAHS)
- 1993 IU Overseas Conference Fund Travel Award (Japan IAHS)
- 1989 Indiana Center for Global Change and World Peace (Travel) Award (Japan ICUC)
- 1989 IU Overseas Conference Fund Travel Award (Japan ICUC)

Travel Support Provided by Others (not included in Grants or Awards)

Feb 2008 COST-728 Meeting, Utrecht, Netherlands
Oct 2007 COST-728 Meeting, Istanbul, Turkey
Aug 2007 Shanghai Meteorological Bureau/World Meteorological Organization, Shanghai, China
May 2007 European Space Agency, Athens, Greece
Nov 2006 Max-Planck Institute for Biogeochemistry, Jena, Germany
Aug 2006 International workshop on countermeasures to urban heat islands, Tokyo, Japan
Oct 2005 Dept Mechanical and Aerospace Engineering, Arizona State University, AZ, USA
Sept 2005 Royal Geographical Society/Institute of British Geographers, London, England
Aug 2005 CSIRO, Canberra, Australia
July 2005 Universities Weather Research Network: Urban Climates, Cambridge, England
May 2005 World Meteorological Organization, Expert Team 3.9 Urban Climatology, Geneva, Switzerland
May 2005 Office for Federal Coordinator for Meteorology, Silver Springs, MD, USA
Mar 2005 King's College London, England
Feb 2005 Dept Geography, UCLA, USA
Feb 2005 International Institute for Sustainability, Arizona State University, AZ, USA
Oct 2004 Numerical Prediction Research Division, Meteorological Research Branch, Environment Canada, Dorval, Canada
Sep 2004 Office for Federal Coordinator for Meteorology, Rockville, MD, USA
Jun 2004 Earth Sciences Göteborg University, Göteborg, Sweden
May 2004 Dept Meteorology, U Reading and UK Met Office, Reading, England
Mar 2004 School of Geography, Earth and Environmental Sciences, U Birmingham, England
Jan/Feb 2004 CSIRO Healthy Country: Designing water sensitive urban areas, Canberra and Melbourne, Australia
Dec 2003 U Otago, Dunedin, New Zealand
Nov 2003 Earth Sciences Göteborg University, Göteborg, Sweden
Oct 2003 Berkeley Atmospheric Sciences, University California, Berkeley, California, USA
Jun 2003 Earth Sciences Göteborg University, Göteborg, Sweden
May 2003 US Weather Research Program, Houston, Texas, USA
Jul 2002 IGBP-GCTE Focus 1, Salt Lake City, Utah, USA
Jun 2002 Earth Sciences Göteborg University, Göteborg, Sweden
Nov 2001 US Weather Research Program, PDT11, Palm Springs, CA, USA
Sep 2000 Earth Sciences Göteborg University, Göteborg, Sweden
Apr 2000 European COST 715, Antwerp, Belgium
Oct 1997 Earth Sciences Göteborg University, Göteborg, Sweden
Oct 1993 Dept Geography, U Illinois, Champaign-Urbana, Illinois, USA
May 1993 Centro de Ciencias de la Atmosfera, Universidad Nacional Autonoma de Mexico, Mexico DF, Mexico
Mar 1993 Dept Geography, U Delaware, Newark, Delaware, USA
Feb 1993 USDA Forest Service, North East Forest and North Central Forest Experimental Stations, Chicago, IL, USA
Oct 1992 Dept Geography and Meteorology, Northern Illinois University, DeKalb, Illinois, USA
Sep 1992 National Acid Precipitation Assessment Program workshop, Raleigh, North Carolina, USA
Jun 1992 Florida Solar Energy Research Center, Cape Canaveral, Florida, USA
Mar 1992 Environmental research group of Southern California Edison, Rosemead, California, USA
Feb 1992 Illinois State Water Survey, Champaign-Urbana, Illinois, USA
Mar 1991 Dept Geography, Ohio State University, Columbus, Ohio, USA
Nov 1990 Environmental research group of Southern California Edison, Rosemead, California, USA
May 1989 Dept Meteorology, San Jose State University, San Jose, California, USA

PUBLICATIONS (ϵ indicates edited volume, ρ partially refereed in journal)**Refereed***Submitted*

ϵ Baklanov A, J Ching, CSB GRIMMOND, A Martilli. Summaries of Discussions, Recommendations and Requirements

Urbanization of Meteorological and Air Quality Models, COST 728 publication.

- ε GRIMMOND CSB, M Best, J Barlow and AJ Arnfield J-J Baik, S Belcher, M Bruse, I Calmet, F Chen, P Clark, A Dandou, E Erell, K Fortuniak, R Hamdi, M Kanda, T Kawai, H Kondo, S Krayenhoff, SH Lee, S-B Limor, A Martilli, V Masson, S Miao, G Mills, R Moriwaki, K Oleson, A Porson, U Sievers, M Tombrou, J Voogt, T Williamson. Urban surface energy balance models: model characteristics and methodology for a comparison study *Urbanization of Meteorological and Air Quality Models*, COST 728 publication

Accepted/In press

2008

- 83 Xu W, MJ Wooster, CSB GRIMMOND 2008: Modelling of urban sensible heat flux at multiple spatial scales: a demonstration using airborne hyperspectral imagery of Shanghai and a temperature-emissivity separation approach, *Remote Sensing of the Environment*, 112, 3493-3510 doi:10.1016/j.rse.2008.04.009
- 82 Oleson KW, GB Bonan, J Feddema, M Vertenstein, CSB GRIMMOND 2008: An urban parameterization for a global climate model: 1. Formulation and evaluation. *Journal of Applied Meteorology and Climatology*, 47, 1038-1060. DOI: 10.1175/2007JAMC1597.1
- 81 Su HB, HP Schmid, CSB GRIMMOND, CS Vogel, PS Curtis 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, doi:10.1016/j.agrformet.2007.08.009
- 80 Pickett STA, ML Cadenasso, JM Grove, PM Groffman, LE Band, CG Boone, GS Brush, WR Burch, Jr., CSB GRIMMOND, J Hom, JC Jenkins, NL Law, CH Nilon, RV Pouyat K Szlavecz, PS Warren, M.A. Wilson 2008: Beyond Urban Legends: New, Unexpected, or Complex Results from the Baltimore Ecosystem Study. *BioSciences*, 58, 139-150, doi:10.1641/B580208

2007

- 79 Mitchell VG, HA Cleugh, CSB GRIMMOND, J Xu 2007: Linking urban water balance and energy balance models to analyse urban design options. *Hydrological Processes* DOI: 10.1002/hyp.6868
- 78 Newton T, TR Oke, CSB GRIMMOND, M Roth 2007: The suburban energy balance in Miami, Florida, *Geografiska Annaler* 89A, 331-347.
- 66 Pigeon G, A Lemonsu, CSB GRIMMOND, P Durand, V Masson 2007: Adjustment of energy balance measurements from a tower to the top of the urban canopy layer for a coastal city. *Boundary Layer Meteorology*, 124: 269-290. DOI 10.1007/s10546-007-9160-2
- 76 Dragoni D, HP Schmid, CSB GRIMMOND, H Loescher 2007: Uncertainty of annual net ecosystem productivity estimated using eddy-covariance flux measurements, *Journal of Geophysical Research*, 112, D17102, doi:10.1029/2006JD008149
- 75 GRIMMOND CSB 2007: Urbanization and global environmental change: Local effects of urban warming, *The Geographical Journal*, 173, 83-88.
- 74 Offerle B, I Eliasson, CSB GRIMMOND, B Holmer 2007: The influence of surface heating on air temperature, wind and turbulence in an urban street canyon. *Boundary Layer Meteorology* 122:273-292 DOI 10.1007/s10546-006-9099-8

2006

- 73 Roberts SM, TR Oke, CSB GRIMMOND, J Voogt 2006: Tests of four methods to estimate urban heat storage in central Marseille. *Journal of Applied Meteorology and Climatology*, 45, 1766-1781
- 72 Wayson CA, JC Randolph, P Hanson CSB GRIMMOND, HP Schmid 2006: Comparison of soil respiration methods in a mid-latitude deciduous forest, *Biogeochemistry*, 80, 173-189.
- 71 Jonsson P, I Eliasson, B Holmer, CSB GRIMMOND 2006: Longwave incoming radiation in the Tropics: results from field work in three African cities *Theoretical and Applied Climatology* 85, 185-201 doi:10.1007/s00704-005-0178-4
- 70 Oliphant AJ, CSB GRIMMOND, HP Schmid, CA Wayson 2006: Local-scale spatial variability of photosynthetically active radiation (PAR), absorbed PAR and net radiation as a function of topography, sky conditions and leaf area index. *Remote Sensing of the Environment*, 103, 324-337 <http://dx.doi.org/10.1016/j.rse.2005.09.021>
- 69 Souch C, CSB GRIMMOND 2006: Applied Climatology: Urban Climatology. *Progress in Physical Geography*. 30, 270-279.
- 68 ε GRIMMOND CSB 2006: Variability of Urban Climates. In Bridgeman H and J Oliver *The Global Climate System: Patterns, Processes and Teleconnections*, Cambridge University Press, 210-223.
- 67 Best M, CSB GRIMMOND, MG Villani 2006: Evaluation of the urban tile in MOSES with flux data. *Boundary Layer*

- Meteorology*, 118, 503-525, DOI 10.1007/s10546-005-9025-5
- 66 p Dabberdt WF, MA Carroll, W Appleby, D Baumgardner, G Carmichael, P Davidson, JC Doran, TG Dye, S GRIMMOND, P Middleton, W Neff, Y Zhang 2006: Report of the USWRP workshop on air quality forecasting. *Bulletin American Meteorological Society*, 87, 2, 215-221
- 65 GRIMMOND CSB 2006: Progress in measuring and observing the urban atmosphere. *Theoretical and Applied Climatology*, 84, 3-22 DOI: 10.1007/s00704-005-0140-5
- 64 Offerle B, CSB GRIMMOND, K Fortuniak, K Kłysik, TR Oke 2006: Temporal variations in heat fluxes over a central European city centre. *Theoretical and Applied Climatology*. 84,103-116. DOI 10.1007/s00704-005-0148-x
- 63 Offerle B, CSB GRIMMOND, K Fortuniak, W. Pawlak 2006: Intra-urban differences of surface energy fluxes in a central European city. *Journal of Applied Meteorology and Climatology*, 45, 125-136.
- 62 Lagouarde JP, M Irvine, JM Bonnefond, CSB GRIMMOND, N Long, T Oke, J Salmond, B Offerle 2006: Monitoring the sensible heat flux over urban areas using large aperture scintillometry: case study of Marseille city during the ESCOMPTE experiment. *Boundary Layer Meteorology*. DOI: 10.1007/s10546-005-9001-0
- 61 Eliasson I, B Offerle, CSB GRIMMOND, S Lindqvist 2006: Wind fields and turbulence statistics in an urban street canyon. *Atmospheric Environment*. 40, 1-16. doi:10.1016/j.atmosenv.2005.03.031

2005

- 60 Pawlak W, K Fortuniak, BD Offerle, CSB GRIMMOND 2005: Zastosowanie metody korelacyjnej do pomiarów strumieni CO₂ i H₂O z powierzchni trawiastej (Application of the correlation method to measurements of CO₂ and H₂O fluxes from the grass surface. *Przegląd Geofizyczny* PL ISSN 0033-2135
- 59 Pawlak W, K Fortuniak, K Kłysik, J Wibig, M Siedlecki, BD Offerle, S GRIMMOND 2005: Pomiar składowych bilansu energetycznego w Łodzi w latach 2000-2004 (Energy balance components measurements in Łódź in the period 2000-2004). *Acta Geographica Lodziensia* 89, 179-194.
- 58 Froelich NJ, HP Schmid, CSB GRIMMOND, H-B Su, AJ Oliphant 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.
- 57 Offerle B, P Jonsson, I Eliasson, CSB GRIMMOND 2005: Urban modification of the surface energy balance in the west African Sahel: Ouagadougou, Burkina Faso. *Journal of Climate*, 18, 3983-3995
- 56 e Band LE, M Cadenasso, CSB GRIMMOND, M Grove, ST Pickett 2005: Heterogeneity in Urban Ecosystems: Patterns and Process, In *Ecosystem Function in Heterogeneous Landscapes* (eds) Lovett GM, CG Jones, MG Turner, Springer-Verlag, NY, 257-278.
- p Salmond JA, TR Oke, CSB GRIMMOND, S Roberts, B Offerle 2005: Venting urban canyons of heat, CO₂ at night. *Bull. Amer. Meteor. Soc.*, 86, 1546-1547.
- 55 Salmond JA, TR Oke, CSB GRIMMOND, S Roberts, B Offerle 2005: Venting of heat and carbon dioxide from urban canyons at night. *Journal of Applied Meteorology*. 44, 1180-1194.
- 54 Offerle B, CSB GRIMMOND, K Fortuniak 2005: Heat storage and anthropogenic heat flux in relation to the energy balance of a central European city center. *International Journal of Climatology*. 25: 1405-1419 DOI: 10.1002/joc.1198
- 53 Mestayer P, P Durand, P Augustin, S Bastin, JM Bonnefond, B Bénech, B Campistron, A Coppalle, H Delbarre, B Dousset, P Drobinsk, A Druilhet, E Fréjafon, CSB GRIMMOND, D Groleau, M Irvine, C Kergomard, S Kermadi, JP. Lagouarde, A Lemonsu, F Lohou, N. Long, V Masson, C Moppert, J Noilhan, B Offerle, T Oke, G Pigeon, V Puygrenier, S.Roberts, JM Rosant, F Saïd, J Salmond, M Talbaut, J Voogt 2005: The urban boundary layer field experiment over Marseille UBL/CLU-ESCOMPTE: Experimental Set-up and First Results. *Boundary Layer Meteorology*, 114 (2): 315-365, doi:10.1007/s10546-004-9241-4

2004

- 52 GRIMMOND CSB, JA Salmond, TR Oke, B Offerle, A Lemonsu 2004: Flux and turbulence measurements at a dense urban site in Marseille: Heat, Mass (water, carbon dioxide) and Momentum. *JGR Atmospheres*, 109, D24, D24101, 19pp doi:10.1029/2004JD004936
- 51 p Souch C, CSB GRIMMOND 2004: Applied Climatology: Heat Waves. *Progress in Physical Geography*, 28, 599-606. doi: 10.1191/0309133304PP428PR
- 50 Oliphant AJ, CSB GRIMMOND, HN Zutter, HP Schmid, HB Su, SL Scott, B Offerle, JC Randolph, J Ehman 2004: Heat storage and energy balance fluxes for a temperate deciduous forest *Agriculture and Forest Meteorology*, 126, 185-201.
- 49 p Dabberdt WF, MA Carroll, D Baumgardner, G Carmichael, R Cohen, T Dye, J Ellis, G Grell, S GRIMMOND, S Hanna, J

- Irwin, B Lamb, S Madronich, J McQueen, J Meagher, T Odman, J Pleim, HP Schmid, D Westphal 2004: Meteorological Research Needs for Improved Air Quality Forecasting: Report of the 11th Prospectus Development Team of the U.S. Weather Research Program. *Bulletin of American Meteorological Society*, 85, 563-586.
- 48 ε GRIMMOND CSB 2004: Understanding urban climates. In DG Janelle, B Warf, K Hansen editors. *WorldMinds: Geographical Perspectives on 100 Problems*. Dordrecht, The Netherlands: Kluwer Academic Publishers, 481-486.
- 47 Lemonsu A, CSB GRIMMOND, V Masson 2004: Modelling the Surface Energy Balance of an old Mediterranean city core, *Journal of Applied Meteorology*, 43, 312-327.
- 46 Su HB, HP Schmid, CSB GRIMMOND, CS Vogel, AJ Oliphant 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.
- 2003**
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- 6 ‡ GRIMMOND CSB, TR Oke 1990: Preliminary comparisons of measured summer suburban and rural energy balances for a hot dry city, Tucson, Arizona. *Proceedings of the International Symposium on Urban Climatology, Air Pollution and Planning in Tropical Cities*. Guadalajara, Mexico, November 25-30 1990, 101-104.

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- 3 ‡ GRIMMOND CSB 1985: Urban water balance: an integrating framework. World Meteorological Organization Conference on Urban Climatology and its Applications with Regards to Tropical Areas, Mexico City, Mexico. World Meteorological Organization, Technical Document No. 7.

1981

- 2 GRIMMOND CSB 1981: An evaluation of the contents of some New Zealand environmental impact reports. U Otago, Geography Discussion Paper No. 27.

1979

- 1 GRIMMOND CSB 1979: Kakanui catchment water resources. Report to the Otago Catchment Board, New Zealand.

INVITED PRESENTATIONS (GRIMMOND sole author unless otherwise indicated)

2008

Current conditions of urban flux measurement studies. Finnish-Japanese seminar: new opportunities for Finnish-Japanese Cooperation in urban land-atmosphere and air quality research, Helsinki, Finland 24-26 November 2008 (keynote)

- 99 Grimmond CSB & M Blackett International Urban Surface Energy Balance Model Comparison, ET4.4 Meeting WMO Geneva, Switzerland, 28-29 July 2008

- 98 Wu X, M Wooster, S GRIMMOND Demonstration of airborne hyperspectral data for mapping the urban energy budget of Shanghai. 4th Annual Seminar on Spatial Information Science and Technology/2nd Workshop on Earth Observation for Urban Planning and Management, The Hong Kong Polytechnic University, Hong Kong, 20-21 May, 2008

- 97 Urban Climate Models and their Applications Arizona State University, May 2008

- 96 Surface-Atmosphere Exchanges in Urban Areas: Measurements and Modelling, The Institute for Integrative and Multidisciplinary Earth Studies (TIIMES), NCAR, 14 May 2008

- 2007**
- 95 Observations of atmospheric processes in urban coastal areas, 4th Polish conference “Urban Climate and Bioclimate” Lodz Poland, 29 November -1 December 2007 (*Plenary*)
- 94 London Atmospheric Observatory, Air Pollution Research In London (APRIL) Climate Change: Thinking through strategies for London. Imperial College London, 22 November 2007
- 93 Understanding Urban Climates through Measurement and Modelling of Surface-Atmosphere Exchanges, U Basel, Switzerland, November 14 2007
- 92 Influence of the urban environment on air quality, MESO-NET NERC Knowledge Transfer Network Mesoscale Modelling for Air Pollution Applications Launch Meeting, UCL London, November 1 2007
- 91 Understanding physical characteristics of urban atmospheres from measurements and modelling, Environmental Research Group, London Air Quality Network, King’s College London, October 30 2007
- 90 Understanding urban atmospheres from measurements and modelling, Dept Geography, U Sheffield, Sheffield, Oct 16 2007
- 89 Observations of atmospheric processes in urban coastal regimes, 7th Conf. on Coastal Atmospheric and Oceanic Prediction and Processes joint with 7th Symposium on the Urban Environment, 10–13 Sept 2007, San Diego, CA (*Plenary*)
- 88 Understanding Urban Climates through Measurement and Modelling of Surface-Atmosphere Exchanges, 1st SSC Meeting the Shanghai WMO GURME Pilot Project, Shanghai Meteorological Bureau, China, August 18 2007.
- 87 Grimmond CSB, M Best, J Barlow. Progress on an urban surface energy balance model comparison study, COST-728 Model urbanization strategy, UK Met Office, Exeter, UK, 3-4 May 2007
- 86 The impacts of a changing climate: City. CABE/CIC (Commission for Architecture and the Built Environment/Construction Industry Council) Climate Impacts Seminar, London, March 29, 2007
- 85 Exposure of instruments in the urban environment; Royal Meteorological Society Special Interest Group on Meteorological Observing Systems Birmingham, March 19 2007
- 84 Challenges in Measuring Urban Fluxes of Carbon Dioxide and Water. Space and Atmospheric Physics Group, Imperial College London, March 6 2007
- 83 Grimmond, CSB, M Best, J Barlow Status of an urban surface energy balance model comparison study, COST-728, Brussels, March 1 2007
- 82 Measuring and Modelling Surface-Atmosphere Exchanges in Urban Environments: Focus on Water, Dept Civil Engineering, Monash U, Australia, February 8 2007
- 2006**
- 81 Measurement of urban surface-atmosphere fluxes of CO₂ and water, Max-Planck Instit. Biogeochemistry, Jena, Germany, 29 Nov 2006
- 80 Understanding Urban Climates through Measurement and Modelling of Surface-Atmosphere Exchanges, Göteborg University, Göteborg, Sweden, October 20, 2006 (*Honorary Doctorate Seminar*)
- 79 Biophysical processes and UGEC: example of Urban Warming, *Urbanisation and Global Environmental Change: 21st Century challenges*, Royal Geographical Society - Institute of British Geographers Annual conference 30 August-1 September 2006, London, England (*Plenary*)
- 78 Current state and future prospects of field measurements for urban warming and its countermeasures. Asian Symposium on Urban Environment and Energy, Institute of Industrial Science, The U Tokyo, 7-11 August, 2006
- 77 Current state and future prospects of field measurements. International workshop on countermeasures to urban heat islands, Tokyo, Japan August 3-4, 2006.
- 76 Grimmond S, Crawford B, Offerle B, Hom J. Measurement of Urban fluxes of CO₂ and water, Union Session: Urban Impacts on the Environment. American Geophysical Union, Baltimore, Maryland USA, 23-26 May 2006
- 75 Understanding urban climate: Measuring and Modeling Surface-Atmosphere Exchanges, Royal Meteorological Society, London, England February 15, 2006
- 2005**
- 74 Understanding urban climate: Measuring and Modeling Surface-Atmosphere Exchanges, Geography and Interdepartmental Environmental Sciences Seminar, Indiana University, November 4, 2005
- 73 Understanding urban climate: Measuring and Modeling Surface-Atmosphere Exchanges, Environmental Fluid Dynamics, Dept Mechanical and Aerospace Engineering, Arizona State U, October 5, 2005
- 72 'Man's [*sic*] role in changing the face of the Earth': Human impacts on climate of cities. Royal Geographical Society - Institute of British Geographers Annual conference 31 August-2 September 2005, London, England (*Plenary*)

- 71 Urban Meteorology Field Experiments: Approaches and Results from Field Campaigns. Urban climatology and its applications, UK UWERN (Universities Weather Research Network), Pembroke College, Cambridge, England (Keynote). July 7-8, 2005.
- 70 Urban micrometeorological flux observations and surface characterization, Helsinki Urban Modeling Workshop, Helsinki Mesoscale Testbed, Vaisala Oyj and the Finnish Meteorological Institute, Helsinki, Finland, 15-16 June 2005
- 69 (1) Review of activities related to the terms of reference of the Expert Team on urban climatology including training (2) Urban climate training materials (3) Bibliography on urban climatology: overview of activities to date. Meeting of the Expert Team on Urban Climatology including Training, Geneva, Switzerland, 23-25 May 2005
- 68 International data sets. Working Group For Environmental Support To Homeland Security (WG/ESHS) Meeting to Discuss the Recovery of Existing ATD Data (READ) May 10, 2005, OFCM Silver Spring, Maryland).
- 67 Measuring and Modeling Urban Climates: King's College, London, March 9th, 2005.
- 65 Understanding urban climates: Measuring and Modeling Surface-Atmosphere Exchanges UCLA, February 18, 2005
Urban surface-atmosphere exchanges: Focus on water, Ecoclimatology, Geography & Ecology, Arizona State U, Feb 17, 2005
- 65 Understanding urban climates: Measuring and Modeling Surface-Atmosphere Exchanges. Instit. for International Sustainability, Arizona State U, February 16, 2005
- 2004**
- 64 Surface-Atmosphere exchanges in urban areas: observations and models. Numerical Prediction Research Division, Meteorological Research Branch, Environment Canada, Dorval, Canada, October 18, 2004
- 63 Regional ecosystem approaches to urban environmental hazard management panel. Challenges in Urban Meteorology A Forum for Users and Providers, Office of the Federal Coordinator for Meteorological Services and Supporting Research, Rockville, Maryland, September 21-23, 2004
- 62 Understanding urban climate: Measuring and Modeling Surface-Atmosphere Exchanges Dept Meteorology, U Reading, England, May 10, 2004
- 61 Variability of turbulence observed at one location: Marseille CBD. (2001). Climate and Atmosphere Research Group, School of Geography, Earth and Environmental Sciences, U Birmingham, England, March 11, 2004.
- 60 Surface-Atmosphere exchanges in urban areas: observations and models, School of Geography, Earth & Environmental Sciences, U Birmingham, England, March 10, 2004.
- 59 Cleugh HA, CSB GRIMMOND, B Offerle Remote Sensing of Urban Areas: Applications, Challenges and Opportunities, CSIRO Earth Observation Centre's Annual Science Meeting, Melbourne, Australia 3-5 March 2004.
- 58 Understanding urban climate: Measuring and Modeling Surface-Atmosphere Exchanges, CSIRO Atmospheric Research, Melbourne-Aspendale, Australia, 20 February, 2004.
- 57 Understanding urban climate: Measuring and Modeling Surface-Atmosphere Exchanges. Australian Meteorological and Oceanographic Society –Australian Capital Territory, Canberra, Australia, 17 February 2004.
- 56 Surface-Atmosphere exchanges in urban areas: observations and models. CSIRO Healthy Country: Designing water sensitive urban areas, Black Mountain Labs, Gungahlin, Canberra, Australia, 3 February, 2004.
- 2003**
- 55 Urban Climatology: Measurements and Modelling, U Otago, Dunedin, New Zealand, December 18, 2003.
- 54 Carbon fluxes in urban areas. In "Human Interactions and the Carbon Cycle in North America" American Geophysical Union, 8-12 December, 2003.
- 53 Surface-Atmosphere exchanges in urban areas: observations and models. Third Atmospheric Science Symposium sponsored by the UC Berkeley Atmospheric Sciences Center (BASC), U California Berkeley, October, 2003.
- 52 Progress in measuring and observing the urban atmosphere. 5th Intern. Conf. on Urban Climate (ICUC-5), Lodz, Poland, September 1-5, 2003.
- 51 Offerle, B, CSB GRIMMOND, K Fortuniak, TR Oke and K Klysik. Temporal Variability in Heat Fluxes over Łódź. 5th International Conference on Urban Climate (ICUC-5), Lodz, Poland, September 1-5, 2003.
- 50 Variability of turbulence observed at one location: Marseille CBD, 2001. Göteborg U, Göteborg, Sweden, June 2003.
- 49 Energy Balance. Joint Urban 2003 Science Team Meeting, Oklahoma City, April 1-2, 2003.
- 2002**
- 48 Trace Gas Fluxes in Urban Ecosystems (Examples of Carbon Dioxide and Water). Ecological processes in urban ecosystems: Toward an international synthesis, IGBP-GCTE Focus 1, Global Change and Terrestrial Ecosystems Meeting, Salt Lake City, Utah, July 2002.

- 47 Salmond JA, CSB GRIMMOND, JA Voogt, TR Oke, S Roberts, B Offerle. Summary of observations and preliminary data
analysis from the CAAM site during ESCOMPTE project. ESCOMPTE-CLU Meeting, Toulouse, France, June 2002.
- 46 Measurement of heat, water and carbon dioxide exchanges at three contrasting urban sites: Baltimore, USA; Marseille,
France; and Lodz, Poland. Earth Sciences Centre, Göteborg U., Göteborg, Sweden, June 2002.
- 45 Modelling of heat and water in urban environments using urban parameterizations: LUMPS and TEB. Earth Sciences
Centre, Göteborg U., Göteborg, Sweden, June 2002.
- 2001**
- 44 Physical Meteorology of Urban Areas. US Weather Research Program, Prospectus Development Team–11, Palm
Springs, CA, November 2001.
Energy and mass flux results from three contrasting urban environments: Marseille, France; Lodz, Poland; and
Baltimore, USA. School of Public and Environmental Affairs, Indiana University, October 2001.
- 43 Odland J, GRIMMOND CSB. How to submit a proposal to the National Science Foundation and get it funded (no
guarantees). Dept Geography, Indiana University, October 2001.
- 41 Marseille Flux measurements during ESCOMPTE/CLU/TUE (site CAA - E10). Urban Boundary Layer Week, Meteo-
France, Toulouse, France, October 2001.
Oke TR, GRIMMOND CSB. Simple parameterizations of urban climates. Ecosystem Seminar series, Environmental Fluid
Dynamics. Dept Mechanical Engineering, Arizona State University, April 2001
- 39 Measurement and modeling of local-scale energy and mass exchanges in urban environments. Baltimore Ecosystem
Study Science Meeting, John Hopkins University, Baltimore, January 2001 (presented by D Nowak).
- 2000**
- 38 Spatial variability of surface energy balance fluxes in urban areas: measurements and a simple parameterization
scheme (LUMPS). Atmospheric Science, U Lodz, Poland, November 2000.
Measuring carbon fluxes in urban environments using micrometeorological techniques. Workshop on Advances in
Terrestrial Ecosystem Carbon Inventory, Measurements and Monitoring, USDA Forest Service, Raleigh NC, Oct
2000.
- 37 Spatial variability of surface energy balance fluxes in urban areas: measurements and a simple parameterization
scheme (LUMPS). Earth Sciences Centre, Göteborg University, Göteborg, Sweden, September 2000.
The role of forests in climate change. Mini University, Indiana University, Bloomington, Indiana, 23 June 2000.
- 34 GRIMMOND CSB, Oke TR A Local-scale Urban Meteorological Pre-processing Scheme (LUMPS), COST 715 Workshop on
Preparation of meteorological input data for urban site studies, Prague, Czech Republic, 15 June 2000.
Oke TR, GRIMMOND CSB. Acquisition, interpretation and use of a multi-city urban climate data set. Institute of
Climate, ETH, Zurich, Switzerland, June 13, 2000.
- 33 GRIMMOND CSB, Oke TR. Heat fluxes in cities. COST 715 "Urban surface energy balance", Antwerp, Belgium, 12 April
2000.
Oke TR, GRIMMOND CSB. Urban-rural differences in the surface energy balance. COST 715 "Urban surface energy
balance", Antwerp, Belgium, 12 April 2000.
- 30 GRIMMOND CSB, Oke TR. Acquisition and use of a comprehensive urban micrometeorological dataset. Meteo-France,
Centre National de Recherches Météorologiques, Toulouse, France, 10 April 2000.
- 1999**
- 29 Urban hydroclimate: the importance of evapotranspiration at different scales Intern. Conf. on Urban Climate 1999
(ICUC'99) Sydney, Australia. November 1999.
Schmid HP, GRIMMOND S, Su HB, Offerle B, Cropley F, Vogel C, Teeri J, Curtis P Atmosphere–Biosphere Exchange:
Results from two AmeriFlux Towers. Atmospheric Sciences, U. British Columbia, Vancouver, Canada. Aug 1999.
Micrometeorological measurements in urban areas. UK Met Office, Bracknell, England, July 1999.
- 26 Schmid, HP, GRIMMOND S, Su HB, Offerle B, Cropley F, Vogel C, Teeri J, Curtis P. Atmosphere–Biosphere Exchange:
Results from two AmeriFlux Towers. U. Michigan Biological Station (UMBS), Pellston, Michigan, July 1999.
Exchanges of CO₂ over a Midwestern Forest, Dept Biology, Indiana University, Bloomington, Indiana. February 1999.
- 1998**
- 24 Evaporation. Dept Geography, U. Otago, Dunedin, New Zealand. March 1998.
- 23 How rough is a city? Dept Geography, U Canterbury, Christchurch, New Zealand, February 1998.
- 1997**
- 22 How rough is a city? Earth Sciences Centre, Göteborg U. Göteborg, Sweden. October 1997.
Grimmond CSB, Barthelmie R, Johnston J, Pryor S, Schmid HP. The Morgan-Monroe State Forest CO₂ Flux Project,

- Geography, Indiana U, Bloomington, Indiana. September, 1997.
- 20 Grimmond CSB, Souch CJ. Physical Geography on the Web. Teaching and Learning Technology Lab Summer Conference, Indiana U, Bloomington, Indiana. May 1997.
- 1996**
- 19 Evaporation and urban hydroclimate: observation and modeling. Dept Geology, IUPUI, Indianapolis, Indiana. April 1996.
- 1995**
- 18 Heat storage in urban areas. Dept Physics Colloquium series and Geography, Geology and Anthropology Department (as part of Geography Awareness week), Indiana State University, Terre Haute, Indiana. November 1995.
- 1994**
- 17 Modifying urban climates: "Plant a tree cool the globe"? Mini-University, Indiana U, Bloomington, Indiana. June 1994.
- 1993**
- 16 Linking a meteorological source area model and a GIS to investigate water and energy exchanges. Association of American Geographers, West Lakes Meeting, Milwaukee, Wisconsin. October 7-9, 1993. Invited paper in Honor of David Miller.
The Chicago Urban Forest Climate Project: An overview and preliminary results. Dept Geography, U Illinois, Champaign-Urbana, Illinois. October 1993.
- 15 Urban energy balance measurements. Centro de Ciencias de la Atmosfera, Universidad Nacional Autonoma de Mexico, Mexico D.F., Mexico. May 1993.
Urban energy and water exchange: Measurement and modeling. Geography, U Delaware, Newark, Delaware. March 1993.
- 12 Energy and water exchanges at the local scale: Overview of research and current status. Chicago Urban Forest Climate Project Review, U.S.D.A. Forest Service, North East Forest Experimental Station and Forest Service, North Central Forest Experimental Station, Chicago, Illinois. February 1993.
- 1992**
- 11 Urban hydroclimate. Dept Geography and Meteorology, Northern Illinois U, DeKalb, Illinois. October 1992.
Meteorological measurement in urban areas. Florida Solar Energy Research Center, Cape Canaveral, Florida. June 1992.
Measurement and modeling of urban hydroclimatic fluxes. Environmental research group of Southern California Edison, Rosemead, California. March 1992.
- 8 Evaporation measurement and modeling. Illinois State Water Survey, Champaign-Urbana, Illinois. February 1992.
- 1991**
- 7 Urban hydroclimate and "Global ReLeaf". Dept Geography, Ohio State U, Columbus, Ohio. March 1991.
- 6 Evaporation in urban areas. Atmospheric Science program, Ohio State U, Columbus, Ohio. March 1991.
- 1990**
- 5 Urban hydroclimate measurement and modeling. Environmental research group of Southern California Edison, Rosemead, California. November 30, 1990.
- 4 Urban hydroclimate and "Global ReLeaf". Indiana Center on Global Change and World Peace, The access to resources working group, Indiana U, Bloomington, Indiana. April, 1990.
- 1989**
- 3 Urban evapotranspiration. Building Energy Analysis Group, Applied Science Division, Lawrence Berkeley Laboratories, UC Berkeley, California. August 1989.
- 2 Spatially consistent local scale urban energy balance. Mini course on the urban atmosphere. Dept Meteorology, San Jose State U, San Jose, California. May 1989.
- 1988**
- 1 Human impact on global climate. Geography & Regional Planning, Western Washington U, Bellingham, Washington, Feb, 1988.

CONFERENCE PRESENTATIONS

(Presentations with proceedings papers (see † above) are not repeated here, except for current year)

† Recipient of student award

Papers to be presented/under review

- Crawford B, A Christen, TR Oke, JA Voogt, S GRIMMOND Observations of carbon dioxide fluxes in two suburban neighborhoods in Vancouver, Canada AMS 89th Annual Meeting/Eighth Symposium on the Urban Environment, 11-15 January, 2009, Phoenix, USA
- Voogt JA, Oke TR, Bergeron O, Goodwin N, Leroyer S, Crawford, B, Christensen E, Nanni B, Tooke R, van der Kamp, D, Bélair S, Chagnon F, Christen A, Coops N, Mailhot J, McKendry I, Strachan I, Wang J, Benjamin M, GRIMMOND CSB, Lemonsu A, Masson V The Environmental Prediction in Canadian Cities (EPiCC) Network, AMS 89th Annual Meeting/Eighth Symposium on the Urban Environment, 11-15 January, 2009, Phoenix, USA
- Christen A, N Coops, B Crawford, N Goodwin, CSB GRIMMOND, TR Oke, and JA Voogt The EPiCC Vancouver Experiment - how do urban vegetation characteristics and garden irrigation control the local-scale energy balance? AMS 89th Annual Meeting/Eighth Symposium on the Urban Environment, 11-15 January, 2009, Phoenix, USA
- Tewari M, F Chen, K Manning, S GRIMMOND, T Loridan, J Ching Numerical Experiments using WRF/Urban Canopy Model over Houston Region AMS 89th Annual Meeting/Eighth Symposium on the Urban Environment, 11-15 January, 2009, Phoenix, USA
- Heisler GM, DJ Nowak, I Yesilonis, R Pouyat, A Lee, A Ellis, E Greenfield, S GRIMMOND Tree-cover influences on below-canopy air temperatures in Baltimore, MD, AMS 89th Annual Meeting/ Eighth Symposium on the Urban Environment, 11-15 January, 2009, Phoenix, USA
- Brazel A, P Gober, S Grossman Clarke, S Myint, R Quay, S GRIMMOND Mitigating Urban Heat Island Effects with Water- and Energy-Sensitive Urban Designs, AMS 89th Annual Meeting/ Eighth Symposium on the Urban Environment, 11–15 January 2009, Phoenix, USA
- Hendry, M, MJ Best, M Gouvea, CSB GRIMMOND. How do initial assumptions for parameters and state variables influence accuracy? AMS 89th Annual Meeting/ Eighth Symposium on the Urban Environment, 11–15 January 2009, Phoenix, USA
- GRIMMOND S, M Blackett, M Best, with Baik J, Bohnenstengel S, Calmet I, Chemel C, Chen F, Dandou A, Fortuniak K, Gouvea M, Hamdi R, Kondo H, Krayenhoff S, Lee S, Loridan T, Martilli A, Masson V, Miao S, Oleson K, Pigeon G, Porson A, Salamanca F, Shashua-Bar L, Steevely G, Sugar L, Trombou M, Voogt J, Zhang N An international urban surface energy balance model comparison study: first results, AMS 89th Annual Meeting/ Eighth Symposium on the Urban Environment, 11–15 January 2009, Phoenix, USA

Papers presented

2008

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Grimmond CSB, TS King, F Cropley. Fluxes of heat, water, momentum, ozone, carbon dioxide and other scalars for urban neighborhoods: A methodology and directions for the future. AAG, Honolulu, Hawaii, March 1999.

1998 (+ 6 presentations with proceedings papers listed below)

Brothers TS, B Offerle, CSB GRIMMOND. The impact of fire on vegetation and environment of karst towers, Los Haitises, Dominican Republic Conference of Latin Americanist Geographers, Santa Fe, New Mexico, September 1998.

Grimmond CSB, TR Oke. How rough is a city? AAG, Boston, Massachusetts, March 1998.

Grimmond S, HP Schmid, S Pryor, R Barthelmie, N Shurpali, B Offerle, B Jensen. Energy, mass and momentum exchange above a Midwestern Hardwood Forest. GEWEX-GCIP Mississippi Basin Conference, St Louis, Missouri, June 1998. (*Poster*)

Grimmond D S, HP Schmid, S Pryor, R Barthelmie, N. Shurpali, B Offerle, B Jensen. Energy, mass and momentum exchange above a Midwestern Hardwood Forest. FLUXNET meeting, Polson, Missouri, June 1998 (*poster*).

Schmid HP, Offerle B, Cropley FC, Su HB, GRIMMOND S. Fluxes of latent heat, sensible heat and carbon dioxide above a Mixed Hardwood Forest in Southern Indiana, 23rd Agricultural and Forest Meteorology conference, AMS, Albuquerque, New Mexico, November 1998.

Schmid HP, Barthelmie R, Curtis P, GRIMMOND S, Pryor S, Teeri J. Carbon dioxide exchanges in mixed hardwood forests in the Midwestern United States: Two AmeriFlux Projects. European Geophysical Society, Nice, France, April 1998.

Shurpali N, Schmid HP, Offerle B, GRIMMOND S. Eddy correlation measurements of latent heat, sensible heat and carbon dioxide fluxes above a Mixed Hardwood Forest in Southern Indiana. GEWEX-GCIP Mississippi Basin Conference, St Louis, Missouri, June 1998.

1997 (+ 1 presentation with proceedings papers listed below)

Grimmond CSB. Geography and Hydrology, Association of American Geographers, Forth Worth, Texas, April 1997 (panelist).

Grimmond CSB, Schmid HP. Determination of surface roughness parameters accounting for fetch: A sensitivity analysis for urban areas. AMS, 12th Conference on Boundary Layers and Turbulence, Vancouver, British Columbia, July - August 1997.

Grimmond CSB, Oke TR. Surface aerodynamic characteristics of urban areas. Third Polish Conference on Urban Climate and Bioclimate, Polish Geophysical Society, Lodz, Poland, October 1997.

Grimmond CSB, Oke TR. Urban roughness parameters: morphometric methods. Association of American Geographers, Forth Worth, Texas, April 1997.

Souch C, GRIMMOND CSB, Wolfe C. Wetland hydrology: Ongoing studies at the Indiana Dunes National Lakeshore. Association of American Geographers, Forth Worth, Texas, April 1997.

Soux A., Oke TR, Smith S, GRIMMOND CSB. Garden irrigation and suburban evaporation. Association of American Geographers, Forth Worth, Texas, April 1997.

1996 (+ 1 presentation with proceedings papers listed below)

Souch C, Wolfe C, GRIMMOND CSB. Evaporation rates from wetlands with different disturbance histories. Association of American Geographers, Charlotte, North Carolina, April 1996.

Grimmond CSB, Oke TR, Spronken-Smith R, Jauregui E, Souch C, Newton T, King TS, Voogt J, Hubble MD. Heat storage in North American cities. Assoc. of American Geographers, Charlotte, North Carolina, April 1996.

Grimmond CSB, Oke TR, Spronken-Smith R, Jauregui E, Souch C, Newton T, King TS, Demanes M, Voogt J, Hubble MD. Local scale heat storage in North American cities. Canadian Meteorological and Oceanographic Society, Toronto, May 1996.

Grimmond CSB, King TS. Measured urban surface resistances/conductances to water vapor transport.

International Conference on Urban Climatology 96. Essen, Germany, June 10-14, 1996.

Grimmond CSB, Oke TR, Spronken-Smith R, Jauregui E, Souch C, Newton T, King TS, Demanes M, Voogt J, Hubble MD. Local scale heat storage in North American cities. International Conference on Urban Climatology 96. Essen, Germany, June 10-14, 1996.

Oke TR, Smith S, Soux A, GRIMMOND CSB. The impact of garden irrigation upon suburban evaporation. International Conference on Urban Climatology 96. Essen, Germany, June 10-14, 1996.

Jauregui E, Spronken-Smith R, Oke TR, GRIMMOND S, Tejada A, Barradas V. Recent energy balance observations in Mexico City. International Conference on Urban Climatology 96. Essen, Germany, June 10-14, 1996.

Slusher RB, Whitehead DR, Robeson SM, GRIMMOND CSB. The effects of within-site microclimatic variation and local weather patterns on the reproductive success of the Acadian Flycatcher (*Empidonax vireescens*). Ecological Society of America 1996 Annual Combined Meeting, Providence, Rhode Island, August 10-14, 1996. (poster).

Souch C, GRIMMOND CSB, Wolfe C. Evaporation rates from wetlands with different disturbance histories. American Geophysical Union, San Francisco, California, December 1996.

Grimmond CSB, Oke TR, Soux A, Smith S. Suburban evaporation rates. American Geophysical Union, San Francisco, California, December 1996.

1995 (+ 3 presentations with proceedings papers listed below)

Souch C, Wolfe C, GRIMMOND CSB. Wetland evaporation rates: Indiana Dunes National Lakeshore. Association of American Geographers, Chicago, Illinois. March 1995.

Southworth J, GRIMMOND CSB. Variation of stomatal resistances within urban areas. Association of American Geographers, Chicago, Illinois. March 1995.

King TS, GRIMMOND CSB, Nowak DJ. Eddy correlation determination of local-scale energy and pollutant fluxes in Chicago. Association of American Geographers, Chicago, Illinois. March 1995.

Hubble M, GRIMMOND CSB. Intercomparison of energy balance fluxes for two neighborhoods with differing tree cover: San Gabriel Valley, Los Angeles, California. Association of American Geographers, Chicago, Illinois. March 1995.

1994 (+ 2 presentations with proceedings papers listed below)

Heisler GM, GRIMMOND CSB, Grant RH, Souch C. Modeling tree and building effects on the microclimate in residential areas. AAG, San Francisco, California, April 1994.

Grimmond S. Local scale surface resistance to water vapor transport for urban areas. Association of American Geographers, San Francisco, California, April 1994.

Grimmond CSB, Oke TR. Comparison of heat fluxes from summertime observations in the suburbs of four North American cities. Canadian Association of Geographers, Wilfred Laurier University, Waterloo, Ontario, May 1994.

Wolfe CP, Willard DE, Olyphant GL, Whitman RL, GRIMMOND CSB, Stewart PM. Wetland hydrology and vegetation in the Great Marsh, Indiana Dunes National Lakeshore. 15th Annual Meeting of the Society of Wetland Scientists, Portland, Oregon, June 1994.

Grimmond CSB, Oke TR. Comparison of heat fluxes from summertime observations in the suburbs of four North American cities. Canadian Meteorological and Oceanographic Society, Ottawa, June 1994.

1993

Demanes M, GRIMMOND S. The use of a source area model with a surface database to determine the influence of urban morphology on surface energy balance exchanges. Association of American Geographers, Atlanta, Georgia, April 1993.

Mattix M, GRIMMOND S. Implications of using a net all-wave radiation sub-model in the estimation of urban evapotranspiration. Association of American Geographers, Atlanta, Georgia, April 1993.

Grimmond S, Souch C, Heisler G. The Chicago Urban Forest Climate Project: An overview and preliminary results. Association of American Geographers, Atlanta, Georgia, April 1993.

Cleugh HA, GRIMMOND CSB. A comparison between measurements of local-scale 'suburban' and areally-averaged 'urban' heat and water vapour fluxes. International Association of Hydrological Sciences/ International Association of Meteorology and Atmospheric Physics, Symposium 93. J3.1 "Exchange processes at the land surface for a range of space and time scales" for the Yokohama Assembly. Yokohama, Japan, July 1993.

Grimmond CSB, Oke TR, Cleugh HA. Intercomparison of observed suburban and rural, irrigated and unirrigated,

energy balance fluxes, Sacramento, California. International Association of Hydrological Sciences/ International Association of Meteorology and Atmospheric Physics, Symposium 93.J3.1 "Exchange processes at the land surface for a range of space and time scales" for the Yokohama Assembly. Yokohama, Japan, July 1993.

Grimmond CSB. Dynamically determined parameters for urban energy and water exchange modelling. Second International Conference/Workshop on Integrating GIS and Environmental Modelling, Breckenridge, Colorado, September 26-30, 1993.

Grimmond CSB. Field Instrumentation in Climate and Meteorology courses. Association of American Geographers, West Lakes Meeting, Milwaukee, Wisconsin, October 7-9, 1993 (*poster*).

1992

Arnfield AJ, GRIMMOND S. Preliminary investigation of urban canyon hysteresis behavior and implications for storage heat flux modeling. Association of American Geographers, San Diego, California, April 1992.

Oke TR, GRIMMOND S. Suburban-rural energy balances and the heat island of a hot dry city, Association of American Geographers, San Diego, California, April 1992.

Grimmond S. An evaluation of an urban evaporation-interception model in a hot, dry city. Association of American Geographers, San Diego, California, April 1992.

Arnfield AJ, GRIMMOND S. An urban canyon energy budget model and its applications to urban storage. Pre-Congress meeting of the International Geographical Union, Commission on Climatology, University Park, Pennsylvania, August 4-7, 1992.

Mattix M, GRIMMOND S. Modelling solar radiation for use in an evapotranspiration-interception model. CIC Conference on Women in Science and Engineering, Indiana University, Bloomington, Indiana, October 1992 (*poster*).

1991 (+ 1 presentation with proceedings papers listed below)

Grimmond CSB, Belding MJ, Isard S. Evaluation of two continuously weighing mini-lysimeters, Association of American Geographers, Miami, Florida, April 1991.

1990 (+ 1 presentation with proceedings papers listed below)

Schmid HP, Cleugh HA, GRIMMOND CSB, Oke TR. Spatial variability of energy fluxes in suburban terrain. European Geophysical Society, XV General Assembly, Workshop on Physical, Chemical and Biological Processes in the Atmospheric Boundary Layer, Copenhagen, DK, 23-27 April 1990. (Abstracts published in *Annales Geophysicae*, 1990)

Grimmond S, Oke TR. An evapotranspiration-interception model for urban areas. Association of American Geographers, Toronto, Ontario, Canada, 1990.

1989

Grimmond CSB, Oke TR. Urban storage heat flux. Association of American Geographers, Baltimore, Maryland, U.S.A., 1989.

Grimmond S, Oke TR. An evapotranspiration-interception model for urban areas. International Federation for Housing and Planning (IFHB)/ International Council for Building Research (CIB)/ World Meteorological Organization (WMO) International Conference on Urban Climate, Planning and Building, Kyoto, Japan, November 1989.

1988 (1 presentation with proceedings papers listed)

1987

Oke TR, Cleugh HA, GRIMMOND S. On the evaluation of evapotranspiration from urban areas. Association of American Geographers, Portland, Oregon, U.S.A., 1987.

1985 (1 presentation with proceedings papers listed)

1984

Grimmond CSB. Assessment of a suburban water balance - a model. U Washington - U British Columbia Hydrology Conference, Seattle, Washington, U.S.A., 1984.

1983

Grimmond CSB. Assessment of a suburban water balance - methods. Canadian Meteorological and Oceanographic Society Congress, Banff, Alberta, Canada, 1983.

Grimmond CSB. Assessment of a suburban water balance - results. Canadian Association of Geographers Congress, Winnipeg, Manitoba, Canada, 1983.

Teaching Manuals/Materials

- Grimmond CSB and C Souch 2001: Geography 109: Weather and Climate. Manual for Continuing Studies, Indiana University (distance learning course).
- Grimmond CSB, C Souch and HP Schmid 1996: Geography 109 Web site (ongoing revisions and updates) <http://www.indiana.edu/~geog109/> [Major revision 2000]. Revised each semester through Fall 2004
- Grimmond CSB 1995: G350 Climatological Instrumentation and Field Methods Manual. Collegiate Copies. *Spring 1995, 1996, 1997*
- Grimmond S and C Souch. Weather and Climate Laboratory Manual G109. Climate and Meteorology Program, Indiana University, 102 pp. Collegiate Copies. Editions: *Fall 1990, Spring 1991, Fall 1991, Fall 1992, Spring 1993, Fall 1993, Spring 1994, Fall 1994, Spring 1995, Fall 1995, Spring 1996, Fall 1996, Spring 1997, Fall 1998, Spring 1999, Spring 2000, Summer 2000, Fall 2000*
- Grimmond S 1992: "Weather or Not" Science Olympiad. Workshop materials. December 1992.

TEACHING GRANTS

External

- 2008-10 UK Met Office Case Studentship Support *Variability of urban surface-atmosphere exchanges: Evaluation of the UK Met Office JULES Scheme (Mariana Gouvea) + KCL SSPP*
- 2002-04 National Science Foundation [0221105] *Doctoral Dissertation Research: Examination of Local-Scale Spatial Variability of Heat Fluxes Across an Urban Area: Integration of Measurements, Remote Sensing, and Modeling* Co-PI: Brian Offerle. \$11,983
- 2002-03 National Science Foundation BCS-0095284 Geography & Regional Science, Research Experience for Undergraduate Students Supplement. *Undergraduate research for Measurement and Modeling of Local Scale Energy and Mass Exchanges in Urban Environments*. \$6000
- 1999-01 US Dept Agriculture, Forest Service, *Urban forestry exercises: the integration of field measurements and GIS/Remote sensing*. Co- Principal Investigators: CJ. Souch (IUPUI) and J Wilson (IUPUI). \$5500
- 1994-96 City of Bloomington. Graduate student geographic information system (GIS) internship program. Year 1: \$12,652. Year 2: \$14,929.
- 1991 National Science Foundation NSF SES-9144227 Geography & Regional Science, Research Experience for Undergraduate Students Supplement. *Undergraduate research experience in development and evaluation of continuously weighing mini-lysimeters*. Principal Investigator \$4,875.
- 1990-93 National Science Foundation NSF EAR-9050419 *Instructional equipment for fieldwork in climatology and meteorology*. Principal Investigator \$49,900. Indiana University matched the NSF grant. \$55,039. Total Grant: \$104,939

Indiana University

- 2004 Commitment to Excellence program in Environmental and Ecological Sciences *Installation of a network of environmentally critical monitoring sites within the Griffy Woods Research and Teaching Preserve (GWRTP) linked by telecommunication equipment for continuous data access* C Brown, B Douglas, S GRIMMOND, Sally Letsinger, Greg Oliphant, Hans Peter Schmid \$54,110
- 2002-03 Research and University Graduate School Undergraduate Research and Creative Activity Partnership Award: Reiko Toriumi *CO2 and Heat fluxes in a Urban Area: Surface Characteristics of Source Area*
- 2001-02 Research and University Graduate School Undergraduate Research and Creative Activity Partnership Award: Kathy Corbin *Soil moisture variability in the MMSF*
- 2001-02 Research and University Graduate School Undergraduate Research and Creative Activity Partnership Award: Ben Crawford *Scale model measurements of anthropogenic heat fluxes from a building*
- 2000-01 Research and University Graduate School Undergraduate Research and Creative Activity Partnership Award: Laura Ciasto. *Evaluation of a simple energy balance model over a Midwestern deciduous forest*
- 1999-01 School of Continuing Studies, *Development of a correspondence version of Geography 109: Weather and Climate*
- 1997-98 School of Continuing Studies and Wisdom Tools. *Development of an on-line version of Geography 109:*

- Weather and Climate*
- 1997 Research and University Graduate School Undergraduate Research and Creative Activity Partnership Award: Jason Moore. *Evaluation of temperature sensors in a forest environment*
- 1996 ICT Instructional Course Development Grant to Enhance Active Learning: *Structured integration of real-time meteorological data into Geography 109: Weather and Climate*
- 1995 Research and University Graduate School Undergraduate Research and Creative Activity Partnership Award: Neal Schroeder. *Hydrology of an urbanizing catchment*
- 1993 Honor's Division Award to G350 Class to attend Association of American Geographers, West Lakes Meeting, Milwaukee, Wisconsin. \$800.
AAG, West Lakes Meeting, Milwaukee, Wisconsin, Oct., 1993.
Projects initiated in Field Methods and Climatological Instrumentation (G350 Spring 1993).
Gray CJ, C Cooley, T Williams 1993: *Observations of springtime urban heat island phenomena in Bloomington, Indiana.*
Hodgkiss R, S Chapple, J Stapinski 1993: *The microclimate effect of underground heating pipes.*
Johnson A., G Lotkowski, J Miller 1993: *The effect of incoming shortwave radiation and temperature on the interior climate of a building.*

TEACHING EXPERIENCE

Graduate Student Awards (external to IU, KCL)

- 2006/7 Vasilis Pappas Monash University: KCL/Monash Travel Award
- 2006 Valerie Anderson, American Meteorological Society, 6th Urban Environment Symposium February 2006 Best Poster Award
- 2004 Ben Crawford: UCGIS Summer Assembly Scholarship to attend the GIScience 2004 conference based on submitted paper
Ben Crawford: UCGIS Best Poster Runner-up, GIScience 2004 conference
- 2003 Brian Offerle: Oral and Poster award, 5th International Conference on Urban Climate Łódź, Poland.
Ben Crawford: Poster award, 5th International Conference on Urban Climate Łódź, Poland

2006 Professor, King's College London (*enrollments*)

- Autumn SG3055 Urban Climatology
- 2008 SG5141/SG5145 Understanding and Managing the Urban Atmosphere (80%)
SG5035 Monitoring Environmental Change (half)
- 2007-08 SG2045 Researching Geography (5 tutees)
IGS (2): Phil Kilgour, Deveka Makawana
- Autumn SG3055 Urban Climatology (25)
- 2007 SG5111 Environmental Research Design and Application (1) Sunday Fayanju
SG5141/SG5145 Understanding and Managing the Urban Atmosphere (half)
SG5035 Monitoring Environmental Change (half)
- 2007-08 SG2045 Researching Geography (12 tutees)
IGS (5): Jinal Patel; Reena Patel; Manreet Randhawa; Pru Robinson; Clare Woodcock
- Autumn SG3055 Urban Climatology (22)
- 2006 SG5111 Environmental Research Design and Application (2): Alessandra Sala, Duick Young
SG5141/SG5145 Understanding and Managing the Urban Atmosphere (5) (half)
SG 5035 Monitoring Environmental Change (9) (half)
- 2006-07 SG 2045 Researching Geography (14 tutees)
IGS (4): Abu Ebrahimsa, Rafia Khan, Rob Larman, Katie Munitz

2001 Professor, Indiana University (*enrollments*)

Fall 2005	G250/577 Computer Methods in Geography (25)
Summer 2005	G460 Geography Internship (2)
Spring 2005	G350/G550: Instrumentation and field methods in Atmospheric Science (14) G840: Readings in Geography (1)
Fall 2004	G440/G540: Physical Geography of the City (10)
Spring 2003	G501: Research Problems in Geography II (4) G350 Instrumentation and field methods in Atmospheric Sciences (8) G460 Geography Internship (2)
Fall 2002	G500: Research Problems in Geography I (4) G109 Weather and Climate (175) G560: Geography Internship (1)
Spring 2002	G501: Research Problems in Geography II (6) G109 Weather and Climate (165) G460 Geography Internship (2)
Fall 2001	G500: Research Problems in Geography I (7) G477/G577: Advanced Climatology and Meteorology, G602 Seminar in Atmospheric Science: <i>Urban Meteorology</i> (9)

Invited Graduate Courses

Politecnico di Milano, Italy (Doctoral programme in Building Systems Engineering)

2008 Microclimate – Physics and Design of Building and Environmental Micro-systems: *Urban Climatology - Characterization of the Urban Heat Island (measurement and data analysis)*, October 2008

Göteborg University, Sweden

2003 Application of Micrometeorological Theory in the Context of an Urban Canyon, November 2003

2000 The Urban Energy Balance, September 2000.

1997 Instrumentation and Field Methods in Atmospheric Science, October 1997

1995-01 **Associate Professor, Indiana University** [enrollments]

G109 Weather and Climate	Fall 1995 (120), Fall 1996 (105), Spring 1997 (140), Spring 1999 (140), Spring 2000 (160), Fall 2000 (175)
G109 Weather and Climate Honors Lab	Fall 1995 (12), Fall 1996 (8), Spring 1997 (13), Spring 1999 (8)
G235 Introduction to Geographic Methods	Fall 1998 (30)
G350 Climatological instrumentation and field methods	Spring 1997 - intensive writing [IW] (13), Spring 1999 -IW (10), Spring 2001 - IW (10)
G400/G460 Internship in Geography	Fall 1995 (3), Summer 1997 (1), Fall 1997 (1), Spring 2001
G405 Hydroclimatology	Fall 1996 (6), Fall 1998 (5)
G440/G540 Topics in Environmental Geography: Physical Environment of the City	Fall 1999 (9)
G450 Undergraduate Research	Fall 1995 (1), Summer 1997 (1), Summer 1999 (1), Spring 2001 (1)
G460 Internship in Geography	Spring 2001 (1)
G470 Micrometeorology & Physical Climatology	Fall 1995 (12)
G477 Advanced Climatology and Meteorology	Summer 1999 (1)
G500 Research Problems in Geography I	Fall 1999 (5), Fall 2000 (11),
G501 Research Problems in Geography II	Spring 2000 (4), Spring 2001 (8)
G602 Graduate seminar in Climatology: Urban Micrometeorology	Fall 1995 (3)
G830 Readings in Geography	Fall 1995 (1), Fall 1996 (1), Spring 1997 (1)
G840 Research in Geography	Spring 2000 (1)

1989-95 **Assistant Professor, Indiana University**

G109 Weather and Climate Spring 1989, Fall 1989, Spring 1990, Fall 1990, Spring 1991, Fall 1992, Spring 1993, Fall 1993, Spring 1994, Fall 1994

G304 Meteorology and Physical Climatology	<i>Fall 1991, Spring 1992</i>
G350 Climatological instrumentation and field methods	<i>Fall 1991, Spring 1993, Spring 1995 - intensive writing</i>
G400 Internship in Geography	<i>Summer 1991, Summer 1992, Summer 1995</i>
G405 Hydroclimatology	<i>Fall 1990, Fall 1992, Spring 1994</i>
G450 Undergraduate research	<i>Summer 1991, Summer 1993, Fall 1993</i>
G470 Micrometeorology & Physical Climatology I	<i>Fall 1989, Spring 1992, Fall 1993</i>
G470 Micrometeorology II	<i>Spring 1990</i>
G572 Advanced Climatological Instrumentation	<i>Fall 1995</i>
G802 Mathematical Modelling in Climatology	<i>Spring 1991, Spring 1994</i>
G830 Readings in Geography	<i>Summer 1991, Fall 1991, Spring 1992</i>
G840 Research in Geography	<i>Fall 1990, Spring 1993, Spring 1994</i>

1981-88 Teaching Assistant, University of British Columbia.

Hydrology (G205), Climatology (G212), Physiography (G213), Forest and Agricultural Meteorology (G214), Hydrology (G303), Micrometeorology (G311), Environment and resources (G366) Aerial Photography (G370), Urban Meteorology (G411).

Occasional lectures to Micrometeorology (G311), Urban Meteorology (G411), Physical Environment of the City (G417), and Proseminar in Physical Geography (G500).

1980-81 Demonstrator, Department of Geography, University of Otago.

Intermediate Physical & Human Geography laboratories & tutorials. Advanced I (Second year) Physical and Human Geography laboratories. Second and third year Hydrology, Climatology and Meteorology labs, field trips and climate station. Field School

GRADUATE SUPERVISION

CHAIR

<i>M.Sc. EMMM (KCL)</i>	<i>Thesis title</i>
Fitzmaurice W	2007-08 <i>Knowledge exchange at the Science-Practice interface: a case study of a local climate impacts profile for an outer London borough</i>
Neupane M	2007-08 <i>Urban Water Demand Under Future Climate Conditions in Oakridge, Vancouver, Canada. A Modelling Approach</i>
Fayanju S	2007-08 <i>Rainfall variability and reliability in Nigeria</i>
Oladimeji M	2007-08 <i>Air quality modelling in a multiparty industrial complex using CALPUFF and ISC</i>
Thomas M	2007-08 <i>Visualisation and analysis of spatial variability of atmospheric temperature in London</i>
Young D	2006-07 <i>Mixing Layer Height Determination over Urban Roughness: A Comparative Study</i>
Sala A	2006-07 <i>Large aperture scintillometry applied in urban areas. Case study: London (UK).</i>
Faridian J	2006 <i>The impact of high-reflectance roofing materials on ambient air temperatures at various neighbourhood scales in Philadelphia, USA</i>
Prieto-Lopez T	2006 <i>An implementation of the Local-scale urban meteorological parameterizations scheme (LUMPS) at a suburban site</i>

M.S. Geography (IU)

Anderson V	2004-	<i>Suburban storage heat flux models and measurements</i>
Crawford B	2003-07	<i>Carbon dioxide fluxes in a suburban area of Baltimore, MD</i>
Zutter H	1999-01	<i>Convective boundary layer over a mid-latitude deciduous forest</i>
Potter S	1996-00	<i>Sky View Factor Estimation [and Tropospheric Ozone Analysis in Urban Areas of Central Indiana]</i>

M.A. Geography (IU)

Southworth J	1992-96	<i>Controls on urban stomatal resistances: Los Angeles Metropolitan Area</i>
Belding MJ	1989-91	<i>Evaluation of the performance of mini-lysimeters. Did not complete</i>
Rowe M	1989-92	<i>Controls on micro and local scale surface energy balance fluxes: Posey County, Indiana</i>

M.A. Geography / M.S.E.S.(IU)

- Demanis M 1991-95 *Surface and atmospheric controls on local-scale energy balance fluxes for Chicago and Sacramento.*
- Mattix M 1991-94 *The impact of clouds on shortwave and longwave radiation.*

Ph.D. Geography (KCL)

- Gouvea M 2008- Supported by KCL SSPP/UK Met Office
- Loridan T 2008- Supported by NSF (PT)

Ph.D. Geography (IU)

- Offerle B 2000-03 *The energy balance of an urban area: examining temporal and spatial variability through measurements, remote sensing and modeling*
Candidacy: October 2001 Defense: September 2003
- Hubble M 1993-95 *Snowmelt in urban areas. Did not complete*
- King TS 1994-96 *Surface resistance to ozone, carbon dioxide, heat and water in urban areas. Did not complete*

Postdoctoral (KCL)

- Blackett M 2008- *Urban Surface Energy Balance Model Comparison (UK Met Office) (KCL)*

Postdoctoral (IU)

- Dragoni D 2003- *Measurements of fluxes and concentrations of CO₂ in and over a Deciduous Forest in the Midwest (Cornell).*
- Bovard B 2002-03 *Measurements of fluxes and concentrations of CO₂ in and over a Deciduous Forest in the Midwest (Duke). Now visiting Assistant Professor Florida International University*
- Oliphant A 2000-02 *Measurements of fluxes and concentrations of CO₂ in and over a Deciduous Forest in the Midwest (Canterbury, New Zealand) Now Assistant Professor San Francisco State Univ.*
- Yukhno S 2000-01 *Junior Faculty Development Program, American Councils for International Education, Ukraine*
- Borne K. 1999-00 *Stomatal resistances in urban areas (Göteborg, Sweden).*
- Cropley F 1998-00 *Measurements of fluxes and concentrations of CO₂ in and over a Deciduous Forest in the Midwest (Cranfield Institute of Technology, England).*
- Shurpali N 1997-98 *Measurements of fluxes and concentrations of CO₂ in and over a Deciduous Forest in the Midwest (Nebraska, USA).*

COMMITTEE MEMBER

M.S. Geography (IU)

- Deng B 2003-06 *A Mechanistic Model to Fill the Data Gaps in Water Vapor Flux*
- Davis M 2002-
- Doty J 2001-03 *Multi-sensor Analysis of Land-Surface Temperature of a Deciduous Forest Using Satellite and Tower-Based Data*
- Froelich N 2000-03 *An Investigation of mean vertical velocities and gully flows at Morgan Monroe State Forest.*
- Villani G 1999-02 *Turbulence and diffusion in and over a forest canopy: measurements and modeling*
- Schoof J 1997-99 *Synoptic circulation classification and downscaling for the Midwestern United States*

M.A. Geography (IU)

- Shein K 1993-95 *Wind speed variability in the Midwestern US 1961-1990: Implications for wind power assessment.*
- O'Neal M 1991-94 *Vegetation-climate interactions at meso-scales for the Midwest region of North America.*
- Fitch M 1989-93 *Mesoscale vortices over the Pacific and Indian Ocean sectors of Antarctica*
- Kahrs J 1989-93 *A synoptic climatology of polar lows over central North America during the winter half year.*
- DeGrand J 1989-91 *A satellite-derived mid-season climatology of jet condensation trails: April 1977 - October 1979*

- Berlin C 1989-90 *A satellite climatology of the south pacific cloud band and related synoptic extratropical cyclone activity*
- Micuda T 1989-90 *Variability of the Palmer Drought Severity Index (PDSI) over the southeast US Between 1947-1986: Ocean-atmosphere interactions*
- Perry M 1989-90 *A satellite climatology of mesoscale convective systems for the Southwestern United States*
- Brinegar R 1989-90 *Land surface - atmosphere interactions and the persistence of drought for the midwest United States*

M.S./M.S.E.S.(IU)

- Slusher B 1994-97 *Neotropical migrant birds and climate in the Hoosier National Forest (Biology/SPEA)*

Ph.D. (KCL)

- Barratt B 2006- *An assessment of the effectiveness of air quality management schemes in London (ERG, SBHS)*

Ph.D. (IU)

- Sato N 2004-06 (Geography) Comprehensives
- Froelich N 2003- (Geography)
- Heynen N 2000-02 *The ecological ramifications of urban restructuring to social justice in Indianapolis, Indiana (Geography)*
- Hutton J 2000- *Transport and chemical processing of isoprene in a northern hardwood forest. (Geography)*
- Ehman J 1996-01 *Ecological estimates of Carbon sequestration in a mid-latitude deciduous forest (SPEA)*
- Johnston J 1995-01 *Multi-scaled modeling of net primary productivity in a temperate deciduous forest (SPEA)*
- Janis M 1994-00 *Confounding Climatic Change: The Problem of Spatially Unrepresentative Air Temperature Records (Geography)*
- Cordel B 1992- *The effects of an in-service science/math workshop on teachers' attitudes and self-efficacy toward science and students' attitude towards science (Science Education)*
- Wolfe C 1991-99 *Ecological Assessment of a Dune Swale Wetland on the Southern Shore of Lake Michigan. (SPEA)*
- Travis D 1990-94 *The radiative effects of, and atmospheric controls on, jet contrails analyzed from digital satellite data. (Geography)*

Ph.D. Minor advisor (IU) Area

- Arnold D. 1990-94 Surface water hydrology
- Travis D. 1990-94 Field methods and instrumentation

Postdoctoral (IU)

- Su HB 1998-00 *Measurements of fluxes and concentrations of CO₂ in and over Deciduous Forests in the Midwest (California Davis, USA)*

UNDERGRADUATE STUDENT RESEARCH SUPERVISION

King's College London

Independent Geographical Studies

- Chudry, Zehra 2008-
- Dunmore, Jodi 2008-
- Kilgour, Phil 2008-
- Makwana, Deveka 2008-
- Patel, Jinal 2007-8 *Variations in the residential water balance: 2003-2007*
- Patel, Reena 2007-8 *The Influence of Cloud Cover on Ultraviolet Radiation Irradiance*
- Randhawa, Manreet 2007-8 *Human comfort in London Underground Victoria line*
- Robinson, Pru 2007-8 *The impacts of the Congestion Charge Zone on air quality in London*

Woodcock, Clare	2007-8	<i>Assessing the potential role and value of urban forests in London in reducing atmospheric carbon dioxide levels</i>
Ebrahimsa, Abu	2006-7	<i>Ozone in London</i>
Khan, Rafia	2006-7	<i>Evaporation in urban gardens</i>
Larman, Rob	2006-7	<i>Hedgerows and borders of fields impact on biodiversity</i>
Munitz, Katie	2006-7	<i>Vegetation and soil differences in Gibraltar and Spain</i>

Indiana University

Undergraduate Research Partnership –see Teaching Grants (above) B.S.E.S.

Zutter H 1999 *Evaluation and application of automated methods to measure sky view factors for urban areas*

B.S. Physics (senior thesis)

Toriumi R 2003 *Urban Surface characteristics for turbulent source areas: calculation of roughness length under neutral conditions*

Undergraduate Research Assistants

<i>Monroe Country Rainfall Runoff Baltimore</i>	Nathan Langwald	Jake Irwin	Justin Wood	Ryan Alyward	
	Ben Crawford	Reiko Toriumi			
<i>MMSF</i>	Kathy Corbin	Ben Crawford	Nick Solga	Jennifer Klippel	Matt Seavitte
	Daniel Kojetin	Laura Ciasto	Shane Hubbard	Todd Barnell	Heidi Zutter
	Nathan Langwald	Reiko Toriumi	Jessica Howe	Noah Benjamin	Catherine Wade
	Ryan Aylward	Jake Irwin	Maggie Barnes	Andrea Lammers	
<i>Hoosier National Forest</i>	Justin Schoof	Meg Swindal	Kevin Sayers	Jason Moore	Mark McKee
<i>Chicago/LA</i>	Melanie Roy	Cass Gray	Amy Johnson	Beth Hall	
	Emily Freeman (Mississippi State Univ)		Dallas Dishman (IUPUI)		

TEACHING PRESENTATIONS/PANELS

- 2004 "Climate" Fostering Freshman Environmental Literacy: A Faculty Seminar, (invited talk)
- 1996 The Center for Excellence in Education Forum, "Teaching with Technology: What do we gain? What do we lose?" Invited Participant
- 1996 ISS/UCS Teaching and Learning Technologies Lab, "Teaching with the Web", TLTL Faculty Round table, Invited Panelist
- 1995 Teaching Resources Center, "Women Teaching, Teaching Women" Invited Member of Panel

SERVICE

KING'S COLLEGE LONDON

Department of Geography

2008-	Ph.D. Admissions Tutor
2007-	Mentor Dr David Moore
2006-08	Deputy Ph.D. Admissions Tutor
2006-	Appraisal Reviewer; Promotions Committee
2006-07	Member of Strategic Committee

SSPP

2006	Admissions Committee (Ph.D.)
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University

Sue Grimmond

2007 Environmental Research Group Management Board
2006 KCL Lead Contact for Affiliation to National Centre for Atmospheric Sciences (NCAS) NERC

INDIANA UNIVERSITY

DEPARTMENT OF GEOGRAPHY

1999-03 Director Graduate Program
1994-03 Director Atmospheric Science Program (prior to 1999: Climate and Meteorology Program)

2002 Member job description and search committee for Grant writer
2000-02 Member of the Publicity Committee
1999-00 Member Salary Committee
1999- Member Departmental Honors, Awards and Fellowships Committee
1999-01 Member Undergraduate Committee
1999-00 Member Space Management Committee
1999-05 Mentor Assistant Professor Tom Evans
1998-99 Member Equipment and computer planning committee
1998-99 Member Graduate advisory committee
1998-99 Member Strategic/Vision planning committee
1998 Member Pre-Tenure Review Committee of Sara Pryor
1998 Member Pre-Tenure Review Committee of Hans Peter Schmid
1996-97 Co-chair Departmental Publicity Committee
1995-97 Chair Colloquium and Visiting Speaker Committee
1995-96 Member Salary Committee
1995 Member Pre-Tenure Review Committee of Scott Robeson
1995 Coordinator for Climatology Faculty Positions Interviews: Assistant and Associate/Full
1994-97 Member of Library Committee
1992-93 Member Salary Committee
1992 Member Graduate Fellowship Committee
1991-97 Member Space Management Committee (Chair 1993-97)
1991-97 Member of Undergraduate Program Committee
1991-93 Member Climatology Curriculum Committee (Chair 1991/92)
1991-92 Member Strategic/Long Range Planning Committee
1991 Coordinator Science Careers Fest
1990-97 Member Graduate advisory committee
1990-91 Member Graduate recruitment committee and Graduate advisory committee
1990-91 Member Search and Screen Committee for Climatologist
1990-91 Coordinator Climatology Caucus
1990 Faculty Coordinator - Geography awareness week - Physical Geography
1989-97 Member Equipment and computer planning committee
1989-93 Supervision of the operation of Dept Geography climate station
1989-91 Supervision of the operation of Westinghouse climate station
1989-91 Member Colloquia and visiting speaker committee

College of Arts and Sciences

2005 Member COAS Salary Review Committee
2001-03 Member COAS Promotion Committee
1997 Member COAS Dissertation Year Fellowship Committee
1996 Member COAS Strategic Directions Proposal Review Panel
1991 Member of the Committee for Core Curriculum in Physical and Life sciences (COAS)

University

2004-05 Member MSB –II Site Selection Committee; Member MSB –II Planning Committee
2003 Member Planning Committee for Multi-discipline Science Building II

2002-03 Member President's Informal Advisory Council
 2002 Member Multi-discipline Science Building (MSB) Design Committee
 2001-05 Mentor Lingling Chen (Assistant Professor, Biology)
 2001-03 Graduate Council, Awards and Financial Aid Committee
 2001-04 Elected member, Graduate Council
 2000-02 Member Steering Committee for a Multi-discipline Science Building
 1999 Reviewer for School of Continuing Studies (Geography 109 Weather and Climate)
 1999- Member UITS Student Technology Centers Advisory Committee
 1995-97 Interdisciplinary Atmospheric Science Email List and Seminar Coordinator
 1995-96 Member IU Strategic Directions Council
 1995-96 Member Research & Univ Graduate School, Undergrad. Research & Creative Partnership committee
 1995 Science Olympiad Examiner - National - 'Experimental Design'
 1995 Member Strategic Directions Task Force for Minority Attainment
 1994- Member COAS/SPEA working group to develop and administer BS. Environmental Science.
 1993-94 Member of Program Committee, Bloomington Chapter of Association for Women in Science/ Women in Science and Mathematics Project
 1993 Speaker, Indiana University Red Carpet day
 1990-94 Science Olympiad Examiner - Regional and State - 'Weather or Not'
 1990-94 Weather Screen on Academic Information Environment (AIE) on the University Computing System (UCS) with Graduate Students.
 1990-92 Indiana University Audio-Visual Center, selection department, reviewer
 1992 IU Team member to CIC Conference on Women in Science and Engineering. Organizer of tours of campus scientific facilities for CIC Conference on Women in Science and Engineering, October 1992.
 1991 Member University Computing Service Textural Processing Committee
 1990 Member University Computing Service Graphics Applications Committee

COMMUNITY & PUBLIC

Book Interview/article: *Primary Editions*, October 1994
 Television interview: KUAT-TV, June 1990, Arizona
 Radio: WFIU Moment of Science - review of scripts
 Newspaper interview/article: The Los Angeles Times, August 1, 1993; July 21, 1994; Sept 22, 1995
 Voice of America; Columbus Dispatch; Miami Herald (February 1996), Indianapolis Star (August 2000).
 Magazine interview/article: *Earth, Panorama (Italy) 2000*
 Advisor to: IndyGreen, Indianapolis

NATIONAL & INTERNATIONAL

Chair

2007- External Examiner, U Birmingham, M.Sc. Applied Meteorology and Climatology
 2005- Lead, Expert Team 4.4 Urban and Building Climatology, World Meteorological Organization (WMO) Commission for Climatology (CCI)
 2003-05 Lead, Expert Team 3.9 (OPAG 3) Urban Climatology including Training, World Meteorological Organization (WMO) Commission for Climatology (CCI), (*invited*)
 2003-06 President, International Association of Urban Climate (*elected*)
 2003 Co-chair Atmospheric Dynamics for "Meteorological aspects of air quality prediction Workshop" US Weather Research Program (*invited*)
 2002-03 President Elect, International Association of Urban Climate
 1999-02 American Meteorological Society, Chair Board on the Urban Environment
 1997-00 American Meteorological Society, Chair Committee on Biometeorology and Aerobiology
 1994-99 International Society of Biometeorology, Co-chair Urban Climate and Air Quality Study Group.
 1996-00 International Urban Climate Email List Coordinator

Member

- 2007- Cost-728 Enhancing meso-scale meteorological modelling capabilities for air pollution and dispersion applications, UK representative Management Committee, Working Group Member
- 2007 Air Pollution Research in London (APRIL) Committee Member
- 2007- GURME Shanghai project, Member Scientific Steering Committee
- 2005- International Scientific and Advisory Committee of the Urban Air Quality Conferences
- 2005- WMO GAW (Global Atmosphere Watch) Urban Research Meteorology and Environment (GURME) Training Team
- 2005- Joint Action Group for Atmospheric Transport and Diffusion Test Beds (JAG/ATDT) under the Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM) Working Group for Environmental Support for Homeland Security (WG/ESHS)
- 2004- Applied Climatology reviewer, *Progress in Physical Geography*
- 2004 Subject Matter Expert, Office of the Federal Coordinator for Meteorology (OFCM) Joint Action Group for the Atmospheric Transport and Diffusion Modeling (Research and Development Plan) JAG/ATD (R&DP).
- 2002-03 Expert Team 3.9 (OPAG 3) Urban Climatology including Training, World Meteorological Organization (WMO) Commission for Climatology (CCI)
- 2001-02 U.S. Weather Research Program (NOAA, NSF, DOD, ASA) Prospectus Development Team 11 (USWRP-PDT-11): Meteorological aspects of air quality prediction
- 2001-04 Association of American Geographers, Article Awards Committee
- 2000-03 Clark Atlantic University, Earth System Science Program Advisory Council (NASA/NOAA)
- 2000-03 International Association for Urban Climate, Elected Member of Board
- 1998-99 American Meteorological Society, Member of selection committee for Walter Orr Roberts Lecturer
- 1995-97 National Science Foundation, Geography & Regional Science, Member Review Panel for Dissertation Awards
- 1994-97 American Meteorological Society, Member Committee on Biometeorology and Aerobiology
- 1994-95 Association of American Geographers 1995 Annual Conference, Member Program Committee
- 1994-97 Association of American Geographers, Climate Specialty Group, Member Student Award Committee
- 1994-06 Association for Women Geoscientists Speakers Bureau, Listed Speaker

Journal Boards

- 2008- *Advances in Meteorology*, Editorial Board member
- 2007- *Agricultural and Forest Meteorology*, Editorial Board member
- 2005-07 Section Editor for Climatology, *Geography Compass* (Blackwell's Publishing)
- 2001- *Journal of Applied Meteorology*, Associate Editor
- 2003- Editorial Board, *IAUC Newsletter*
- 1996-99 *Annals of the Association of American Geographers*, Member of Editorial Board

Conferences organized (Chair)

- 2007-09 American Meteorological Society 2009 Annual Meeting, Co-chair whole meeting: 'Urban Weather and Climate' (Invited by President-elect of AMS: Walt Dabberdt)
- 2008 World Meteorological Organization, Expert Team 4.4 Urban and Building Climatology, Geneva, Switzerland, July 28-29, 2008
- 2005 World Meteorological Organization, Expert Team 3.9 Urban Climatology including Training, Geneva, Switzerland, May 23-25, 2005
- 2004-06 AMS 2006 Annual Meeting for Cross-cutting theme "Managing Our Physical & Natural Resources" Co Chair (Steve Hanna, Atlanta, GA 29 Jan-2 Feb, 2006 (Invited by President-elect of AMS: Walt Lyons)
- 2003-06 International Conference for Urban Climate (ICUC6), President of IAUC
- 2000-02 Amer. Meteor. Soc. 4th Symposium on the Urban Environment Norfolk, VA, Co-Program Chair.
- 1999-00 Amer. Meteor. Soc. 3rd Symposium on the Urban Environment Davis, CA, Program Chair.
- 1997-98 Amer. Meteor. Soc. 2nd Symposium on the Urban Environment Albuquerque, NM Program Chair.

Conferences organized (Committee member)

- 2004-05 UN World Conference on Disaster Reduction *Session on "Reducing Risks in Urban Areas: Lessons Learned and Coming Challenges"* under Thematic Cluster 2, 18-22 January 2005, Kobe, Hyogo, Japan (WMO/IAUC)
- 2002-04 American Meteorological Society 2004 Annual Meeting

- 2002-03 Fourth International Conference on Urban Air Quality - Measurement, Modelling and Management 25-28 March 2003, Charles University Prague, Czech Republic: International Scientific and Advisory Committee
- 2002-03 International Association for Urban Climate, 5th ICUC, Łódź, Poland Conference: Local Organizing Committee; International Scientific Committee
- 1997-99 International Conference on Urban Climate 1999 (ICUC'99) Sydney, Australia: Intern. Organizing Committee; International Scientific Committee
- 1995-96 Amer. Meteor. Soc., Member Program Committee for 12th Conf on Biometeorology and Aerobiology, 77th Annual American Meteorological Society Conference

Conference sessions organized

- 2004 Baltimore Ecosystem Study LTER Science Meeting -- Cub Hill, April 21, 2004.
- 2002 Assoc. Amer. Geographers Annual Conf, Los Angeles, Mar 2002. 3 sessions: Surface-Atmosphere Interactions
- 2000 Assoc. Amer. Geographers Annual Conf, Pittsburgh, PA, Apr 2000. 4 Sessions: Physical Geog. of Urban Areas.
- 1999 Assoc. Amer. Geographers Annual Conf, Honolulu, Hawaii, March 1999. Urban climate session
- 1996 Amer. Meteor. Soc, Biometeorology and Aerobiology Conf., Atlanta, GA, Jan 1996. Two Urban Met sessions
- 1995 Assoc. Amer. Geographers Annual Conf, Chicago, Illinois, March 1995. Two Urban Climate sessions
- 1992 Assoc. Amer. Geographers Annual Conf, San Diego, California, April 1992. I: Urban Energy Balance; II: UHI

Conference invited participant (only those attended are listed)

- 2005 Helsinki Urban Modeling Workshop, Helsinki Mesoscale Testbed, Vaisala Oyj and the Finnish Meteorological Institute, Helsinki, Finland June 2005
Co-leader "Microscale- and physical-modeling group: what processes to simulate; what parameters needed; what observations needed (in situ, remote, GIS), how to link to mesoscale models"
- 2005 Joint Action Group for Atmospheric Transport and Diffusion Test Beds (JAG/ATDT), May 11, 2005 OFCM, Silver Springs, Maryland
- 2002 UCAR/NSF Workshop on a Design for a Prototype CitySat: Imaging Regional Urban/Industrial Environmental Footprints, Boulder, Colorado, August 2002.
- 2002 Ecological processes in urban ecosystems: Toward an international synthesis, IGBP-GCTE Focus 1, Global Change and Terrestrial Ecosystems Meeting, Salt Lake City, Utah, July 2002.
- 2001 US Weather Research Program (USWRP) Prospectus Development Team (PDT-11) "Critical meteorological issues related to the prediction of air quality" Palm Springs, California, November 2001.
- 1999 Bridging the Climate Information Gap, Argonne National Laboratory, Illinois, September 1999.
- 1992 National Acid Precipitation Assessment Program workshop: "The urban perspective of acid rain", Raleigh, North Carolina, September 1992.

Journal Referee

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| <ul style="list-style-type: none"> Advances in Atmospheric Sciences Agricultural and Forest Meteorology Annals of the Assoc of American Geographers Atmosfera Atmospheric Chemistry and Physics Discussions Atmospheric Environment Atmospheric Environment - Urban Atmosphere Atmospheric Science Letters Biogeosciences Discussion Boundary Layer Meteorology Bulletin of American Meteorological Society Climate Research Energy and Buildings Environmental Technology Geofísica Internacional Geographical & Environmental Modelling Global Change Biology | <ul style="list-style-type: none"> Hydrological Processes Internet Journal of Urban Climate International Journal of Climatology Journal of Applied Meteorology [and Climatology] Journal of Arid Environments Journal of Atmospheric and Oceanic Technology Journal of Geography Journal of Geophysical Research - Atmospheres Journal of Hydrology Journal of Hydrometeorology Meteorology and Atmospheric Physics Meteorological Applications Monthly Weather Review Physical Geography Quarterly Journal of the Royal Meteorological Society Remote Sensing and the Environment Theoretical and Applied Climatology |
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Chapter Review

IPCC Working Group II Fourth Assessment:

Chapter 7: Industry, Settlement and Society

Chapter 14: North America

US Climate Change Science Program (CCSP) Synthesis and Assessment Product.

Chapter 14: Human Settlements and the North American Carbon Cycle

Research Paper Referee

Florida Solar Energy Center

Lawrence Berkeley Laboratory

US Dept Agriculture Forest Service

Book Reviews

American Meteorological Society

Text Books Reviewed for Publishers

Lee X, Massman W, Law B 2004: Handbook of Micrometeorology Kluwer [Prospectus]

Ahrens CD 1991: *Meteorology Today*, West Publishers, St Paul, MN.

Gedzelman SD 1980: *The Science and Wonders of the Atmosphere* and *The Dynamic Atmosphere*, Wiley, NY (reviewed in 1994)

Scorer, R 1999. *Pollution Weather*, Wiley-Praxis, Chichester. [Prospectus]

Web Content Review

American Institute of Biological Sciences www.actionbioscience.org

ESPERE - Environmental Science Published for Everyone Round the Earth

External Research Proposals and Reports Reviewed

Austrian Science Fund (FWF)

Canadian Foundation for Climate and Atmospheric Sciences (CFCAS-FSCSA)

Canada Natural Sciences and Engineering Research Council (NERC)

City University of Hong Kong

Hong Kong Research Grants Council

Kuwait Foundation for the Advancement of Science

MONTS (NSF)

National Aeronautics and Space Administration (NASA)

National University of Singapore

Netherlands Organisation for Scientific Research (NWO), Technology Foundation (STW)

Swiss National Science Foundation

U.K. Engineering and Physical Sciences Research Council (EPSRC)

U.K. National Environmental Research Council (NERC)

U.S. National Science Foundation (NSF)

Biological Sciences

Chemical Oceanography

Geography and Regional Science

Hydrologic Sciences

Physical Meteorology

U.S. Dept Energy: National Institute Global and Environmental Change (NIGEC)

U.S. Man and the Biosphere

University Grants Committee of Hong Kong

Research Proposals Comments Requested

Southern California Edison, Rosemead, CA

Florida Solar Energy Center, Cape Canaveral, Florida.

External Examiner

2007-08 School of Geography, Earth and Environmental Science U Birmingham
MSc Applied Meteorology and Climatology

External Ph.D. Examiner

(Disciplines: Earth Sciences, Environmental Science, Meteorology/Physics)

U Melbourne, Australia

Imperial College London, UK

Universite Paul Sabatier-Toulouse, France (2)

External Faculty Promotion (and Tenure) Reviewer

(Disciplines: Architecture, Environmental Science, Forestry, Geography, Mechanical Engineering, Meteorology)

Arizona State University, USA

U Kansas, USA

Ben-Gurion U the Negev, Israel

University Kebangsaan Malaysia, Malaysia

Macquarie University, Australia

U Oklahoma, USA

McMaster University, Canada

Utah State University, USA

University College Dublin, Ireland

Yale University, USA

U Colorado, Boulder, USA

MEMBERSHIPS

American Geophysical Union

International Association of Hydrological Sciences

American Meteorological Society (*elected Fellow 2006*)

International Association for Urban Climate

Association of American Geographers (AAG) (past)

International Society of Biometeorology (past)

European Geosciences Union (EGU)

Royal Meteorological Society (Fellow)

Indiana Urban Forest Council (past)

Sigma Xi (past)

Field Experience

Date	Location	Collaborators	Project	Funding
2006	London, UK	Duick Young (KCL) §, Alessandra Sala (KCL) §, Reena Patel (KCL) μ, Alastair Reynolds (KCL)	KCL roof	
2006-7	London, UK	Eiko Nemitz (CEH, Edinburgh), Jane Barlow (Reading), Vasilis Pappas (KCL), Alastair Reynolds (KCL)	BT tower	
3/2005-	Bloomington, IN	Dr Jack Wittman (MCDB), Dr Kelly Caylor (IU), Steve Scott (IU), Angela Martin (IU), Valerie Anderson § (IU), Bin Deng ¶ (IU), Nate Langwald μ (IU), Jake Irvin μ (IU), Justin Wood μ (IU)	Monroe County Rainfall Runoff (MCRR)	USGS/IWRRC
7/2003	Oklahoma City, OK, USA	Dr Hong Bing Su (IU), Ben Crawford §/μ (IU), Steve Scott (IU), Dr Sharon Zhong (UH), Craig Clements ¶ (UH)	Joint Urban 2003	DTRA/DOE
2/2003	Ouagadougou, Burkina Faso	Brian Offerle ¶ (IU), Dr Ingegard Elliason (Gothenburg), Pelle Jonson ¶ (Gothenburg), Local support: DNM	EC3d, Basic, IRT	NSF, IU PCIP
2002	Basel, Switzerland	(just provided equipment)	Basel Urban Boundary Layer Experiment (BUBBLE)	

2001	Marseille, France	Brian Offerle¶ (IU) , Prof Tim Oke (UBC), Dr James Voogt (UWO), Sarah Roberts§ (UBC) Jenny Salmond ¶ (UBC)	EC3d, Basic, open IRGA CO ₂ fluxes IRT, Escompte	Escompte, PNTS, NSF, NSERC, CFCAS
2001-06	Baltimore, MD, USA	Brian Offerle¶ (IU), Steve Scott (IU) Dr John Hom (USDA FS), Dan Golub (USDA FS),	EC3d, Basic, open IRGA CO ₂ fluxes	USDA FS, NSF
11/2000→	Lodz, Poland	Brian Offerle (IU), Dr Krzysztof Fortuniak (UL), Prof. Kazimierz Klysik (UL)	EC3d, Basic, open IRGA CO ₂ fluxes	NSF, NATO, IU PCIP, UL
10/2000	Salt Lake City, UT	Dr Michael Brown (LANL)	Sky View Factor	
2000	Morgan Monroe State Forest, IN	Heidi Zutter§	Boundary layer profiles	NIGEC
2/1998→	Morgan Monroe State Forest, IN	Dr Hans Peter Schmid (plus many others)	EC3d, Basic, closed IRGA CO ₂ fluxes	NIGEC
1998-00	Bloomington, IN	Sean Potter§ (IU), Heidi Zutter ^µ (IU)	Sky View Factor	
1995	Miami, FL, USA	Prof. Tim Oke (UBC), Trevor Newton§ (UBC), Andres Soux µ (UBC), Mark Hubble¶ (IU)	Basic EC1d EC3d	NSERC (Oke)
1995	Chicago, IL, USA	Tom King¶ (IU)	EC3d, EC1d, Basic closed IRGA CO ₂ and O ₃ fluxes	USDA FS
1994	Chicago, IL, USA	Tom King¶ (IU)	EC3d, EC1d, Basic closed IRGA CO ₂ and O ₃ fluxes	USDA FS
1994	Arcadia & San Gabriel, LA, CA	Mark Hubble¶ (IU), Tom King¶ (IU)	EC1d, EC3d, closed IRGA CO ₂ Fluxes, Long term Basic, IRT	SCE, USDA FS
1993	Mexico City, Mexico	Dr Ernesto Jauregui (UNAM), Prof. Tim Oke (UBC), Rachel Spronken-Smith¶ (UBC)	EC1d, Basic	NSERC (Oke)
1993	Arcadia, Los Angeles, CA, USA	Mark Demanes§ (IU), Jane Southworth§ (IU), Michele Mattix§ (IU)	Long term Basic EC1d, IRT	SCE USDA FS
1992	Vancouver, BC Canasa	Prof. Tim Oke (UBC), Rachel Spronken-Smith¶ (UBC), James Voogt¶ (UBC)	Basic, EC1d Boundary layer profiles	NSERC (Oke) IU
1992	Chicago, IL, USA	Dr Catherine Souch (IUPUI)	Long term Basic EC1d	USDA FS
1991	Sacramento, CA, USA	Prof. Tim Oke (UBC), Rachel Spronken-Smith¶ (UBC), James Voogt¶ (UBC), Mark Belding¶ (IU), Dallas Dishman µ (IU)	Boundary layer profiles Basic, EC1d, IRT	NSERC (Oke) IU
1991	Bloomington, IN	Mark Belding§ (IU)	Lysimetry	NSF
1990	Tucson, AZ, USA	Rachel Spronken-Smith¶ (UBC)	Basic, EC1d, IRT	USDA FS
1987	Vancouver, BC	GRIMMOND¶ (UBC)	Basic, Bowen ratio	NSERC
1986	Vancouver, BC	GRIMMOND¶ (UBC)	Lysimetry	NSERC
1982	Vancouver, BC	GRIMMOND§ (UBC)	Basic, Water balance	NSERC

¶, §, µ Ph.D., MS, or undergraduate student, respectively, when work was conducted NSERC, AES funding to Oke.

Basic: radiation fluxes, soil heat flux, temperature, relative humidity, wind speed, direction, precipitation etc; EC – 3-d sonic, momentum, turbulence, sensible and latent heat flux using eddy covariance techniques; EC1-d one dimensional sonic and latent heat; IRT – infra-red thermometry; Open or Closed – open or closed path IRGA infra red gas analyzer.

October 14, 2008