

Curtis R. Wood PhD MInstP FRMetS Docent

Atmospheric Physicist

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Degrees/titles

Docent	2013. Docent (Adj.Prof.) in Meteorology. <i>University of Helsinki</i>
PhD	2003–2007. Jointly between University of Reading UK, Rothamsted Research UK and the Met Office UK. Biometeorology of high-altitude insect layers in the boundary layer using radar
BSc(Hons)	2000–2003. University of Reading UK. Meteorology, 1st class (top grade) . Final-year project: <i>developing electric psychrometry</i>

Employment

2017–	Senior Researcher in meteorology at Finnish Meteorological Institute, Atmospheric Composition Unit (+ urban.fmi.fi)
2016–2017	Expert in Observation Quality Control group at Finnish Meteorological Institute
2016	Head of Observation Quality Control group at Finnish Meteorological Institute (line manager of 10 people)
2011–2015	Senior Researcher in meteorology at Finnish Meteorological Institute
2009–2011	Project manager and researcher in urban experimental meteorology at University of Reading UK, ACTUAL (project working with private and public bodies), www.actual.ac.uk
2007–2009	Post-doctoral researcher in urban dispersion based at University of Reading UK in the DAPPLE consortium (on a Home Office government contract), www.dapple.org.uk
2007	Lectureships (2 fixed-term posts: Spring and Autumn) at University of Reading UK
2002–2003	Hydrometric technical officer, in Severn Region at Environment Agency UK; 2 summer positions of 10 weeks each (measuring river flow, installing rain gauges, checking groundwater stations, calibrating equipment)
2000	Tester of computer software for Informal Software

Awards

RMetS *ASL Editor's Award* 2015

Languages

English (native), Finnish (intermed. B2), German (basic A1), French (basic A1)
Wish to continue learning Finnish to higher level

Computing & technical

- Write code in Matlab, Octave, SQL, Fortran, HTML (e.g. SSI, PHP), unix/linux shell-scripts, grads, latex (basics); (I should be able to quickly adapt to any high-level language like Python)
- Extensive PC application use (Access, Word, Excel, Publisher, Powerpoint, Visio, Windows, Photoshop, Illustrator, GenStat, Virtualbox)

- Design and build logging systems (Campbell Scientific) for atmospheric measurements: such as micro-meteorological eddy-covariance installations (anemometers, gas analyzers, thermometers, radiometers), including making own site-specific manual/technical guide
- Created automated systems for: data collection, quality control, data analysis, data archiving systems, and email alerts
- Worked with a range of other equipment (both technical/install/calibration plus software and data analysis): doppler aerosol-wind lidar (HALO Photonics Streamline), scintillometers (Scintec), radiosondes, tethered instrumented balloon
- Ability to perform basic tasks with wires/cables/connectors/plugs/components and using related tools (wire strippers, screwdrivers, etc), also can perform simple soldering tasks
- Build, fix and install PCs and their software
- Build and maintain websites (e.g. <http://urban.fmi.fi>) with html or WordPress

Driving licence

Full licence, with years of experience driving manual/auto cars/vans (UK, Finland, USA, Germany, etc). Can conduct basic car maintenance (change wheel, air filter, windscreen wipers, bulbs, etc)

Professional activities

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| 2013–2016 | Board Member of <i>International Association for Urban Climate</i> |
| 2014–2016 | Consultant and data analyst on project (Automated Quality Control renewal) in Observation unit of FMI |
| 2013–2017 | COST Action ES1303 (TOPROF) – Management committee sub. |
| 2010–2016 | Associate Editor for the journal <i>Atmospheric Science Letters</i> |
| 2015 | Evaluation-panel member of conference student posters, ICUC-9 |
| 2015 | Chair of two conference sessions, ICUC-9 |
| 2014 | Reviewer of conference abstracts, ICUC-9, Toulouse, July |
| 2012 | Chair of conference session, ICUC-8, Dublin, August |
| 2012 | Chair of stable-ABL workshop session, Helsinki, December |
| 2012 | Co-organized workshop in Helsinki on urban meteorology, January |
| 2011 | Member of working group for the strategic plan for the <i>RMetS</i> 2012–2014 |
| 2010–2011 | Member of organising committee of the 2011 staff-development conference for research staff within the <i>University of Reading</i> |
| 2009–2011 | Member of the <i>University of Reading's</i> Research Staff Committee |
| 2008–2011 | Chair and member of the 'research-funded staff forum' in the <i>Meteorology Department</i> |
| 2008–2011 | Member of the <i>Institute of Physics'</i> Environ. Physics committee |
| 2010–2011 | Fire Warden in the <i>Meteorology Department</i> |
| 2009–2012 | Member of the Council of the <i>RMetS</i> (and hence trustee) |
| 2009–2011 | Associate Editor (Atmospheric Physics) for the <i>Central European Journal of Geosciences</i> |
| 2009 | Organiser of a half-day <i>RMetS</i> meeting "Insects, Weather & Climate", 18 March |
| 2009 | Member of the Health, Safety & House Committee in the <i>Meteorology Department</i> |

2007–2009	Member of the Meetings Committee of the <i>RMetS</i>
2006	Chair of organising committee of the 2006 <i>RMetS</i> Student Conference (UEA Norwich UK)
2005	Member of organising committee of the 2005 <i>RMetS</i> Student Conference (Exeter University UK)
2004–2011	Designed, built and maintained a research group website: www.met.rdg.ac.uk/bl_met
2004–2006	Newsletter editor for <i>Meteorology Department</i>
2002	Co-founder of the annual <i>Meteorology Department</i> Photography Competition: (Bain and Wood, 2003, <i>Weather</i> 58:280)

Grants

Summer 2014	AMS 21 st BLT	500€	Travel Award from EMS
Autumn 2013	2-year post-doc	56000€	Maj and Tor Nessling Foundation
Autumn 2011	Collaboration	£450	RMetS legacies fund
March 2010	Science week	£1860	RCUK (H. Dacre lead applicant)
June 2008	AMS 18th BLT	£300	RMetS legacies fund
"	"	£400	University's research travel grant
May 2006	AMS 17th BLT	£300	RMetS legacies fund
July 2005	Fieldwork	£400	RMetS legacies fund

Peer-reviewed publications ([ISI statistics](#): >400 citations, [h-index 12](#))

- 27 Martin D, White IR, Petersson F, Robins A, Barlow JF, [Wood CR](#), Tomlin AS, Shallcross DE (2015) **Full-scale observations of the possible influence of traffic on upwind urban dispersion**. *Atmos Env*, resubmission under way
- [26](#) Backman J, [Wood CR](#), Auvinen M, Kangas L, Hannuniemi H, Karppinen A, Kukkonen J (2017) **Sensitivity analysis of the meteorological pre-processor MPP-FMI 3.0 using algorithmic differentiation**. *Geosci Mod Dev Disc*
- [25](#) Nordbo A, Karsisto P, Matikainen L, [Wood CR](#), Järvi L (2015) **Urban surface cover determined with airborne lidar – implications to surface energy balance modelling**. *Urban Climate* 13: 52–72.
- [24](#) van Dinter D, [Wood CR](#), Hartogensis OK, Nordbo A, O'Connor EJ (2015) **Observing crosswind over urban terrain using scintillometer and Doppler lidar**. *Atmos Meas Tech* 8, 1901–1911
- [23](#) Hirsikko A, O'Connor EJ, Komppula M, Korhonen K, Pfüller A, Giannakaki E, [Wood CR](#), Bauer-Pfundstein M, Poikonen A, Karppinen T, Lonka H, Kurri M, Heinonen J, Moiseev D, Asmi E, Aalstonen V, Nordbo A, Rodriguez E, Lihavainen H, Laaksonen A, Lehtinen KEJ, Laurila T, Petäjä T, Kulmala M, Viisanen Y (2014) **Observing wind, aerosol particles, cloud and precipitation: Finland's new ground-based remote-sensing network**. *Atmos Meas Tech*, 10.5194/amt-7-1351-2014
- [22](#) Barlow JF, Halios C, Lane SE, [Wood CR](#) (2014) **Observations of urban boundary layer structure during a strong urban heat island event**. *Environ Fluid Mech*, 10.1007/s10652-014-9335-6

- [21](#) Wood CR, Kouznetsov RD, Gierens R, Nordbo A, Järvi L, Kallistratova MA, Kukkonen J (2013) **On the temperature structure parameter and sensible heat flux over Helsinki from sonic anemometry and scintillometry.** *J Atmos Ocean Tech*, 10.1175/JTECH-D-12-00209.1
- [20](#) Wood CR, Järvi L, Kouznetsov RD, Nordbo A, Drebs A, Vihma T, Hirsikko A, Suomi A, Fortelius C, O'Connor EJ, Moiseev D, Haapanala S, Moilanen J, Kangas M, Karppinen A, Joffre S, Vesala T, Kukkonen J (2013) **An overview of the Urban Boundary-layer Atmosphere Network in Helsinki.** *Bull Amer Meteorol Soc*, 10.1175/BAMS-D-12-00146.1
- [19](#) Lane SE, Barlow JF, Wood CR (2013) **Assessment of a three-beam Doppler lidar wind profiling method for use in urban areas.** *J Wind Eng Indutr Aerodyn*, 10.1016/j.jweia.2013.05.010i
- [18](#) Xie Z-T, Hayden P, Wood CR (2013) **Large-Eddy Simulation of Approaching-Flow Stratification on Dispersion over Arrays of Buildings.** *Atmos Environ*, 10.1016/j.atmosenv.2013.01.054
- [17](#) Wood CR, Pauscher L, Ward HC, Kotthaus S, Barlow JF, Gouvea M, Lane SE, Grimmond CSB (2012) **Wind observations above an urban river using a new lidar technique, scintillometry and anemometry.** *Sci Tot Environ*, 10.1016/j.scitotenv.2012.10.061
- [16](#) Nordbo A, Järvi L, Haapanala S, Wood CR, Vesala T (2012) **Fraction of natural area as main predictor of net CO₂ emissions from cities.** *Geophys Res Lett*, 39:L20802.
- [15](#) Harrison RG & Wood CR (2012) **Ventilation effects on humidity measurements in thermometer screens.** *Quart J Roy Meteorol Soc*, 138:1114–1120
- [14](#) Barlow JF, Harrison J, Robins AG, Wood CR (2011) **A wind-tunnel study of flow distortion at a meteorological sensor on top of the BT Tower, London, UK.** *J Wind Eng Indust Aerodyn*, 99:899–907
- [13](#) Helfter C, Grimmond CSB, Barlow JF, Wood CR, Famulari D, Phillips GJ, Nemitz E (2011) **Controls of carbon dioxide concentrations and fluxes above central London.** *Atmos Chem Phys*, 11:1913–1928
- [12](#) Wood CR & Harrison RG (2011) **Scorch marks from the sky.** *Weather*, 66:39–41
- [11](#) Barlow JF, Dunbar TM, Nemitz EG, Wood CR, Gallagher IM, Davies F, O'Connor E, Harrison RM (2011) **Boundary layer dynamics over London, UK as observed using Doppler lidar.** *Atmos Chem Phys*, 11:2111–2125
- [10](#) Martin D, Petersson KF, White IR, Henshaw SJ, Nickless G, Lovelock A, Barlow JF, Dunbar T, Wood CR, Shallcross DE (2011) **Tracer concentration profiles measured in central London as part of the REPARTEE campaign.** *Atmos Chem Phys*, 11: 227–239
- [9](#) Wood CR, Lacser A, Barlow JF, Padhra A, Belcher SE, Nemitz E, Helfter C, Famulari D, Grimmond CSB (2010) **Turbulent flow at 190 metres above London during 2006–2008: a climatology and the applicability of similarity theory.** *Bound-Layer Meteorol*, 137:77–96
- [8](#) Balogun AA, Tomlin AS, Wood CR, Barlow JF, Belcher SE, Smalley RS, Lingard JL, Arnold SA, Dobre A, Robins AG, Martin D, Shallcross DE (2010) **In-street wind direction variability in the vicinity of a busy intersection in central London.** *Bound-Layer Meteorol*, 136:489–513
- [7](#) Wood CR, Clark SJ, Barlow JF, Chapman JW (2010) **Layers of nocturnal insect migrants at high-altitude: the influence of atmospheric conditions on their formation.** *Agric For Entomol*, 12:113–121

- [6](#) Wood CR & Harrison RG (2009) **An anthropogenic snowfall event in the UK: an example of urban weather modification?** *Weather*, 64:277–280
- [5](#) Wood CR, Reynolds DR, Wells PM, Barlow JF, Woiwod IP, Chapman JW (2009) **Flight periodicity and the vertical distribution of high-altitude moth migration over southern Britain.** *Bull Entomol Res*, 99:525–535
- [4](#) Wood CR, O'Connor EJ, Hurley R, Reynolds DR, Illingworth AJ (2009) **Cloud-radar observations of insects in the UK convective boundary layer.** *Meteorol Applic*, 16:491–500
- [3](#) Wood CR, Arnold SJ, Balogun AA, Barlow JF, Belcher SE, Britter RE, Cheng H, Dobre A, Lingard JJN, Martin D, Neophytou M, Petersson FK, Robins AG, Shallcross DE, Smalley RJ, Tate JE, Tomlin AS, White IR (2009) **Dispersion experiments in central London: the 2007 DAPPLE project.** *Bull Amer Meteorol Soc*, 90:955–969
- [2](#) Wood CR, Chapman JW, Reynolds DR, Barlow JF, Smith AD, Woiwod IP (2006) **The influence of the atmospheric boundary layer on nocturnal layers of noctuids and other moths migrating over southern Britain.** *Int J Biomet*, 50:193–204
- [1](#) Reynolds DR, Chapman JW, Edwards AS, Smith AD, Wood CR, Barlow JF, Woiwod IP (2005) **Radar studies of the vertical distribution of insects migrating over southern Britain: the influence of temperature inversions on nocturnal layer concentrations.** *Bull Entomol Res*, 95:259–274

Reports

- [14](#) Koop D, Fortelius C, Wood CR (2016) Understanding differences in modelled and measured urban heat fluxes. *Aladin/HARMONIE annual meeting 24.2.2016*
- [13](#) Wood CR (2016) Ilomantsin sateen vertailu. *Internal report 8.9.2016 in FMI's Observation unit*
- [12](#) Wood CR (2016) Mäntsälän sateen vertailu. *Internal report 22.9.2016 in FMI's Observation unit*
- [11](#) Hyvönen R, Wood CR, Poikonen A, Hannuniemi H, Seppänen M (2016) Lausunto Loviisan ydinvoimalaitoksen uuden säähavaintojärjestelmän mittauksista. *Contract report 31.9.2016 from FMI to STUK*
- [10](#) Wood CR, Vira J, Sofiev M, Kouznetsov R, Tarvainen V (2014) AtILa D5 – Impact of rockets on the atmosphere. *ESA contract report 4000105828/12/F/MOS*
- [9](#) Wood CR, Vira J, Sofiev M, Tarvainen V, Koch A, Bauer C, Minutolo F, Winkler H (2012) AtILa D2 – Model development and integration. *ESA contract report 4000105828/12/F/MOS*
- [8](#) Wood CR and Järvi L (2012) An overview of urban climate observations in Helsinki. *Magazine of the Finnish Air Pollution Prevention Society*, 3:30–33
- [7](#) Charlton-Perez A, Dacre H, Maskell K, Reynolds R, South R & Wood C (2010) **Meteorology and climate inspire secondary science students.** *School Science Review*, 92: 75–81
- [6](#) Wood CR (2010) **Adapting our cities for future climates.** *Weather*, 65: 307–309
- [5](#) Wood CR (2009) **Insects, weather and climate.** *Weather*, 64:221–223
- [4](#) Wood CR & Harrison RG (2009) **Some reports of snowfall from fog during the UK winter of 2008/09.** *ArXiv*, <http://arxiv.org/abs/0902.1326>
- [3](#) Robins AG, *et al.* (2008) **DAPPLE Fieldwork Experiments.** *HPA Chemical Hazards and Poisons Report*, September

- 2 Hardiman S, Patmore N, Wood C (2006) **Meeting report Student Community 2005 and 2006 Assemblies.** *Weather*, 61:57
- 1 Wood CR (2005) **Nocturnal Layers of Airborne Insects: The Meteorological Impacts.** *Antenna*, 30:92–93

Books (assisting)

Editorial assistant of: *Weather of the 90s*. Wright PB (2000). Westwind Services. ISBN10: 0953971007

Science and language checks for: “*Introducing Meteorology: A Guide to the Weather.*” Shonk J (2013). Dunedin Academic Press. ISBN-10: 1780460023

Peer-review

...of academic manuscripts: □ *Quarterly Journal of the Royal Meteorological Society*, □ *Atmospheric Environment*, □ *Atmospheric Chemistry and Physics*, □ *Journal of Atmospheric and Oceanic Technology*, □ *Urban Climate*, □ *Journal of Geophysical Research Atmospheres*, □ *Remote Sensing of the Environment*, □ *Physical Geography*, □ *Journal of Hydrometeorology*, □ *Weather*, □ *Meteorological Applications*, □ *Science of the Total Environment*, □ *Atmospheric Science Reviews*, □ *Atmospheric Measurement Technologies*, □ *Aerobiologia*, □ *Central European Journal of Geosciences*, □ *Integrative and Comparative Biology*

...of grant proposals: NOAA, Polish Science Foundation

Commissioned editing/reviewing

- 14 Backman (2015), Optical properties of atmospheric aerosols using filter-based absorption photometers, *University of Helsinki PhD thesis*
- 13 Carbone (2014), Chemical characterization and source apportionment of submicron aerosol particles with aerosol mass spectrometers, *University of Helsinki PhD thesis*
- 12 Hongisto (2014), Impact of the emissions of international sea traffic on airborne deposition to the Baltic Sea and concentrations at the coastline, *Oceanologia*
- 11 Neitola et al. (2014), Total sulphate vs. sulphuric acid monomer in nucleation studies, *Atmospheric Chemistry and Physics*
- 10 Makkonen (2014), Measurement of inorganic ions and their precursor gases in the ambient air, *University of Helsinki PhD thesis*
- 9 Ialongo et al. (2013), Characterization of OMI tropospheric NO₂ over the Baltic Sea region, *Atmospheric Chemistry and Physics*
- 8 Hakkarainen (2013), On state and parameter estimation in chaotic systems, *Lappeenranta University of Technology PhD thesis*
- 7 Kallistratova et al. (2013) Profiles of wind speed variances within nocturnal low-level jets observed with a sodar, *Journal of Atmospheric and Oceanic Technology*
- 6 Sofiev et al. (2013), Global mapping of vertical injection profiles of wild-fire emission, *Atmospheric Chemistry and Physics*
- 5 Holopainen et al. (2012), Plant phenological records in northern Finland since the 18th century as retrieved from databases, archives and diaries for biometeorological purposes, *re-submitted to the International Journal of Biometeorology*
- 4 Parkkila et al. (2012), *Submitted to the Journal of Environmental Economics and Policy*
- 3 Pilli-Sihvola et al. (2012), Climate change and science—policy interface in Finland, Sweden, and Norway. *Submitted*

- 2 Sofiev (2012), Wild-land fires: features, means of monitoring and plume modelling, estimated impact on atmospheric composition and climate, *Developments in Environmental Science*
- 1 Sofiev et al. (2012), Evaluation of the smoke-injection height from wild-land fires using remote-sensing data. *Atmospheric Chemistry and Physics*

Invited presentations

- 2013 **Turbulence over Helsinki from scintillometers and sonic anemometers**, Scintillometer workshop, Tübingen (Germany), October
- 2011 **Lidar observations of wind and turbulence over central London** at Risoe in Denmark, November
- “ **Some aspects of flux observations above the roughness sublayer over complex land-use** at NordFlux workshop in Denmark, November
- “ **Observing London’s climate using Doppler lidar** in a special working group on ‘Intercomparison of Wind measurement from Lidar and Wind Profiler’ (COST ACTION ES0702) Cardington UK, March
- “ **Observing London’s climate** at the University of Helsinki’s Atmospheric Physics Division, February
- 2010 **Boundary-layer urban turbulence, as measured atop the BT-Tower in London** at University of Manchester’s Centre for Atmospheric Science, February
- 2007 **Detection of insects in the boundary layer using radar** at The Royal Meteorological Society's north-west local centre evening meeting, 24 April
- “ **Lagrangian trajectory modelling and the nocturnal boundary layer** at Birmingham University's School of Mathematics, applied seminar series for postgraduates, 14 March
- 2006 **The impact of the nocturnal boundary layer on layers of insects** at The Royal Meteorological Society Scottish Centre Postgraduate Evening, 10 February
- 2005 **Nocturnal Layers of Airborne Insects: The Meteorological Impacts** at The Royal Entomological Society Postgraduate Forum, 2 February
- “ **The Impacts of Meteorology on Vertical Insect Distribution** at the Met Office dispersion research seminar, 20 January

Conference presentations (listed are: presenting or first author only)

- 2015 (*Two presentations at ICUC-9, Toulouse, July*)
- 2014 **Observing horizontal wind transects over an urban terrain with scintillometer and lidar technologies** (poster 52) at AMS BLT conference in Leeds, June
- “ **How much is traffic responsible for upwind dispersion of a tracer in central London?** (6A.4) at AMS BLT
- “ **In-situ and remotely sensed shallow atmospheric boundary layers over Helsinki city** (4A.8) at AMS BLT
- “ **Shallow atmospheric boundary layers observed over Helsinki** (poster) ISARS conference in Auckland, January
- 2013 **Helsinki's Urban Boundary-layer Atmosphere Network: Helsinki UrBAN** (EMS2013-68) at EMS conference in Reading, September
- “ **Observing shallow atmospheric boundary layers over Helsinki** (EMS2013-69) at EMS conference

- “ **Turbulence over Helsinki from sonic anemometer and scintillometer observations (EMS2013-70)** at EMS conference
- 2012 **SODAR-derived mixing heights over Helsinki** at ISARS conference in Boulder, June
- “ **Lidar, scintillometer and anemometers compared, and flow over the River Thames analysed** at ISARS conference in Boulder, June
- 2011 **Boundary-layer dynamics over London, UK, as observed using Doppler lidar and scintillometers (oral)** at the European Meteorological Society Annual Conference in Berlin, September
- “ **Helsinki Urban Boundary Layer Observation Network: An Overview** at The 9th International Symposium on Advanced Environmental Monitoring and Modeling, Helsinki, Summer
- “ **Observing London’s Boundary Layer Using Lidar and Scintillometers (oral)** at the International Workshop on Urban Weather and Climate, Observation and Modelling in Beijing, July
- 2010 **Stable air over London UK (oral)** at the American Meteorological Society (AMS)'s conference on boundary layers and turbulence in Colorado, August
- “ **Boundary layer dynamics over London, UK as observed using Doppler lidar (oral)** at the ISARS conference, near Paris, June
- 2009 **A climatology of flow and turbulence at 190 m above central London (poster)** at the *Royal Meteorological Society* (RMetS) biennial conference in Reading UK, July [<http://cedadocs.badc.rl.ac.uk/358/>]
- “ **An overview of methods of full-scale urban dispersion in experiments during DAPPLE (oral)** at the AMS 8th Urban Symposium in Phoenix, January
- “ **Line source tracer release experiments in central London (oral)** at the AMS 8th Urban Symposium in Phoenix, January [http://ams.confex.com/ams/89annual/techprogram/paper_147929.htm]
- 2008 **Turbulence and dispersion in central London: the DAPPLE 2007 project (oral)** at the Wind Engineering Society conference in Guildford UK, July
- “ **Atmospheric turbulence characteristics in central London (poster)** at the American Meteorological Society (AMS)'s conference on boundary layers and turbulence in Stockholm Sweden, June
- 2007 **Lagrangian modelling of insects in the nocturnal boundary layer (oral)** at the RMetS's biennial conference in Herriot-Watt UK, September
- 2006 **The impact of the nocturnal boundary layer on layers of insects (oral)** at the RMetS's student conference in UEA (Norwich) UK, 21 August
- “ **The impact of the nocturnal boundary layer on layers of insects(oral)** at the American Meteorological Society (AMS)'s conference on aerobiology and biometeorology in San Diego USA, 22 May
- “ **Atmospheric impacts on night-time layers of insects (oral)** at Rothamsted's annual PhD symposium in Harpenden UK, 11 May
- 2005 **Insects in the nocturnal jet (oral)** at RMetS's biennial conference in Exeter UK, September
- “ **Insects in the nocturnal jet (oral)** at RMetS's annual student conference in Exeter UK, September

- “ **The Influence of Temperature on Nocturnal Insect Layers (poster)** at Rothamsted PhD symposium in Harpenden UK, May
- 2004 **The Impacts of Nocturnal Boundary Layer Structure on Vertical Insect Distribution (oral)** at the UWERN biennial conference in Salford UK, December
- “ **The biometeorology of high-altitude insect layers using vertical-looking radar (poster)** at RMetS's Student Conference in Leeds UK, September
- 2004 **The biometeorology of high-altitude insect layers: a case study (poster)** at the AMS 16th conference on biometeorology and aerobiology in Vancouver Canada, August
- “ **The biometeorology of high-altitude insect layers (poster)** at Rothamsted PhD symposium in Harpenden UK, May

Visits to other institutions (medium–long term only)

- 2014 2 weeks to Rothamsted Research and University of Reading, Sep
- 2011 4 weeks at Finnish Meteorological Institute during Jan, Feb, Mar

Lecturing (sporadic)

- 2013 Teaching assessment (including demo lecture), Science Faculty University of Helsinki: grade excellent
- 2013 FMI SILAM winter school

Teaching experience (all at University of Reading)

- 2008–2011 A marker of MSc and BSc dissertations
- 2003–2010 Group leader on Field Courses at Arran and Dorset: micro-meteorology, radiosondes, weather forecasting, surface-layer dynamics
- 2007–2010 Lead and support for Weather and Climate Discussion
- 2007 Lectured Atmospheric Physics (+ setting exams and coursework)
- 2007 Lectured Introduction to Computing (Matlab, Fortran, HTML)
- 2007 Lectured Weather Systems
- 2003–2006 Demonstrated on many courses given to BSc and MSc students

Student supervision of summer placements (at FMI)

- 2015 Placement student project on urban meteorology (model and EC)
- 2014 Summer student project on urban meteorology (lidars and ABL)
- 2013 Summer student project on urban meteorology (scintillometers)
- 2012 Summer student project on urban meteorology (scintillometers)

Student supervision for degree dissertation (at University of Reading)

- 2011 Digitization of sunshine cards, computer science project
- 2011 Boundary layer depth estimates in lidar, MSc student
- 2011 Humidity measurements in Stevenson Screens, MSc student
- 2010 Micrometeorology, MMet student
- 2010 Gaseous fluxes and micrometeorology, MSc student
- 2009–2010 Wind in urban areas, MMet student
- 2009 Wind power in urban areas, MSc student
- 2008–2009 Wind power in urban areas, BSc student

- 2008–2009 Solar beam intensity from sunshine recorders, BSc student
- 2007 Personal tutor of two MSc students

Wider community interaction

- 2010 Organiser of tour of meteorology laboratories for general public; 8 November
- 2010 Joint-organiser of a Weather Forecasting schools event held during National Science and Engineering Week; March
<http://tinyurl.com/ForecastingTheWeather>
- 2009 Invited to give a talk at the Geography Club, King's School (Canterbury); 28 September
- 2008 Participant in Berkshire's i-Festival teentech, presenting a day-in-the-life approach about science to school students (featured on the BBC South TV Politics show); 12 November
- 2008 Presented at the BA Festival of Science on "Climate change: the facts and myths" at Liverpool University; September
- 2007 Host visits of my former High School (Wigmore UK) to Reading University, two visits per year (2007–2008 inclusive)
- 2007 Evening science talk at Sandhurst School (Berkshire UK); 5 July
- 2007 A NERC/RCUK public briefing for Science Week about the science of climate change at Swindon UK; 17 March
- 2003 Analysing model output from climateprediction.net with students at Bulmershe School in Reading UK; Autumn

Media interviews & articles

- 2015 Guardian newspaper ([Weather Watch](#) "Leafy streets are cooler"); following work on the effect of trees and buildings on Helsinki weather
- 2012 Guardian newspaper ([Weather Watch](#) "The Thames like a windpipe in the city's lungs") following work on wind and turbulence over river in London
- 2011 BBC News article: "[Could it rain apples?](#)" – comment on tornadoes and wind; December
- 2010 Local TV interview (Meridian News) during the science week activities (see above); March
- 2010 Local press (Reading) on preparations for climatological observations on BT Tower in London; February
- 2010 Local radio interviews (Heart FM) on the cold weather and deep snow in January
- 2009 Telegraph and Guardian articles (and radio interviews with BBC Oxford, Heart FM, BBC Berkshire); following the release of Wood & Harrison (2009) on snowfalls from freezing fog; October
- 2009 Guardian newspaper (*Weather Watch*); following the release of papers on insect layers
- 2009 BBC Berkshire (radio) interview on the highlights of a RMetS national meeting (Insects, Weather & Climate); 18 March
- 2008 BBC Leeds (radio), talking about the 'Weekend Effect' of weather; 12 November
- 2008 BBC Berkshire (radio) had a feature on the Meteorology Department at Reading. A series of short features were done on the observatory, in the laboratories and with a computer; 6 November

Public sector interactions

- 2010 Advised on possible effects of meteorological conditions on sound propagation from outdoor music festival (Sam Bryan, Reading Borough Council)
- 2009 Final meeting of 'DAPPLE' project on urban dispersion with members of the UK Home Office (government department)
- 2009 Presented at the APRIL network meeting (London-based research on air pollution, with London city officials)

Field experiments

- 2012– Co-ordinating member of collaborations in urban climate observations in Helsinki: <http://urban.fmi.fi> (e.g. campaign July 2014, Uni. of Salento)
- 2010 Field manager for experiments in central London as part of ACTUAL project (Advanced Climate Technology: Urban Atmospheric Laboratory), July
- 2008 Joint field manager of line emission dispersion experiments in central London as part of DAPPLE project (Dispersion of Pollution and its Penetration into the Local Environment), March
- 2007 Participant in dispersion experiments in central London as part of REPARTEE project (REgent'sPARk and Tower ExperimEnt), November
- 2007 Joint field manager of dispersion and turbulence experiments in central London as part of DAPPLE project, May–June
- 2005 Joint operations manager for aerial insect netting campaign and nocturnal boundary layer studies at Cardington Airfield in Bedfordshire UK, Summer
- 2004 Joint operations manager for aerial insect netting campaign and nocturnal boundary layer studies at Cardington Airfield in Bedfordshire UK, Summer

Professional development courses (if not stated, at the University of Reading: UoR)

- 2012 **Parametrizations for numerical weather forecasts**, April (ECMWF)
- 2011 **Facing your fears**, May
- 2010 **Media workshop**, Walker Institute, June
 - “ **Research leadership & management**, Henley Business School, May
 - “ **Project management**, April
 - “ **Fire safety for fire wardens**, April
 - “ **Freedom of Information and Data Protection**, April
 - “ **Media workshop**, Royal Institution, March
 - “ **Supervising research students**, March
- 2009 **Research staff conference**, November
 - “ **Interviewing skills for staff recruitment**, November
 - “ **Masterclass in research proposals**, October
 - “ **Moving to a university lectureship**, June
- 2008 **Peer-reviewing papers**, November
 - “ **Photoshop: beginner and intermediate**, Summer
 - “ **Presentation skills**, July
 - “ **Placement and project students**, May
 - “ **Endnote**, February
- 2007 **Time management**
 - “ **Writing grant proposals**, December

- “ **Making a professional start with teaching**, January
- 2006 **Marking and feedback**, November
- “ **Induction for new teaching staff**, October
- 2005 **Career development**, BBSRC, 3 May
- “ **Technical writing**, BBSRC, 18–19 January
- “ **Inter-personal skills**, BBSRC, 13 January
- 2004 **Presentation skills**, BBSRC, 19–20 May

Society membership

- Royal Meteorological Society (Fellow)
- Institute of Physics (Member)
- International Association for Urban Climate (Member)
- Wind Engineering Society (past)
- American Meteorological Society (past)
- American Geophysical Union (past)

BSc(Hons) Meteorology 2000–2003

Year1 Applied Mathematics, Mathematics for Scientists, Concepts in Physics, Classical Mechanics, Atmosphere Oceans and Climate, Measuring the Atmosphere, Synoptic Meteorology 1&2

Year2 Fluid Motion, Meteorological Essay Project (sea breezes), Surface Energy Exchange, Dynamics, IT for Environmental Science, Calculus of Several Variables, Atmospheric Chemistry, Climate and Climate Change, Numerical Methods for Environmental Science, Partial Differential Equations & Fourier Series, Geophysical Fluid Dynamics, Linear Algebra, Cloud Processes, Radiative Transfer, The Hydrological Cycle, Statistical Concepts in Environmental Science, Middle Latitude Dynamics, Environmental Systems

Year3 Meteorology Field Class, Microscale Meteorology, Ocean Science, Remote Sensing, Surface Layer Processes, General Studies, Clouds Radiation & Climate, Middle-latitude Dynamics, Numerical Weather Prediction, Atmospheric Analogues, Tropical Dynamics, The Global Circulation, Weather systems in Middle Latitudes, Tropical Latitude Laboratory, Final-year project: *developing a hand-held direct-reading electric psychrometer*

(+ yearbook editor)