

Andrew R. D. Smedley

PERSONAL INFORMATION

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EMPLOYMENT HISTORY

PDRA at Centre for Atmospheric Science, University of Manchester, UK	2020–date
PDRA at School of Mathematics, University of Manchester, UK	2018–2020
PDRA at Centre for Atmospheric Science, University of Manchester, UK	2003–2018
Research Assistant at Atmospheric Physics Laboratory, UCL, UK	1998–1999

EDUCATION

PhD in Atmospheric Physics, <i>The spectral scattering properties of cloud types</i> . UMIST, Manchester, UK.	1998–2003
BA and MSc Honours Degree in Natural Science (Physical): First / 2:1 University of Cambridge, UK	1994–1998

PROJECTS

PDRA on “ICE-RF” Responsible for cloud and radiative measurements; project aim is to improve estimates of cirrus radiative forcing and backscattering for climate models and satellite retrievals	2018–date
PDRA on “Lost Meteorites of Antarctica” project Responsible for geophysical modelling, spatial and data analysis for project expeditions	2018–2020
PDRA on DEFRA <i>UV and Ozone Baseline Measurements</i> Responsible for continued operation, instrument calibration and data analysis for Manchester and Reading surface radiation and ozone monitoring sites	2003–2017
EPSRC <i>Analytic Scattering</i> project; Industrial RT investigations	2015–2017
EMRP <i>SolarUV</i> EURAMET-funded project Awarded Researcher Excellence Grant to apply DOAS retrieval technique to array spectrometer	2012–2014

AWARDS

Distinguished Service, <i>CIE Division 6 Secretariat</i>	2008–2013
Science Communicator Award, <i>Researchers in Residence</i>	2005

TEACHING

External examiner for Anna Vaskuri, Aalto University	2018
Co-supervisor of Roberto Carrasco-Hernandez, successfully passed PhD viva	2013–2015
Responsible for MPhys final year project supervisions	

OTHER ACTIVITIES

Reviewer for a range of journals: <i>PCPB, IJClm, ACP, Atmos. Env., IPCC SR15</i>	
Key member of local organising committee <i>CIE 28th Session</i>	2015
Research featured in range of media outlets: <i>BBC One Show, New Scientist, The Atlantic</i> etc.	

RESEARCH INTERESTS

Radiative transfer in a changing climate – radiative impacts and remote sensing of the cryosphere – radiative properties and remote sensing of clouds – scattering – cloud morphologies – spatial and temporal variability – atmospheric retrievals – solar radiative transfer measurements and modelling

RESEARCH METRICS

Total Citations: **498**
Total Altmetric: **708**
H-Index: **12**

SELECTED PUBLICATIONS

Zerefos C et al. (2017) Detecting volcanic sulfur dioxide plumes in the Northern Hemisphere using the Brewer spectrophotometers, other networks, and satellite observations. *Atmos. Chem. Phys.* **17**, 551-574. doi:10.5194/acp-17-551-2017

Evatt GW et al. (2016) A hidden layer of meteorites below the ice surface of Antarctica. *Nature Comms* **7**, 10679. doi:10.1038/ncomms10679

Smedley ARD et al. (2015) Assessment of a dual-channel array spectrometer for ground-based ozone retrievals. *J. Atmos. Ocean. Tech.* **32**(8), 1464–1477.

Kazantzidis A et al. (2015) A modeling approach to determine how much UV radiation is available across the UK and Ireland for health risk and benefit studies. *Photochem. Photobiol. Sci.* **14**, 1073–1081.

Walmsley L et al. (2015) Colour as a signal for entraining the mammalian circadian clock. *PLoS Biol.* **13**(4), e1002127. doi: 10.1371/journal.pbio.1002127

Smith HR et al. (2015) Cloud chamber laboratory investigations into the scattering properties of hollow ice particles. *J. Quant. Spectrosc. Radiat. Transf.* **157**, 106–118. doi: 10.1016/j.jqsrt.2015.02.015

Petkov BH et al. (2014) Response of the ozone column over Europe to the 2011 Arctic ozone depletion event according to ground-based observations and assessment of the consequent variations in surface UV irradiance. *Atmos. Env.* **85**, 169–178. doi: 10.1016/j.atmosenv.2013.12.005

Smedley ARD et al. (2012) Total ozone and surface UV trends in the United Kingdom: 1979 to 2008. *I. J. Clim.* **32**(3), 338–346. doi: 10.1002/joc.2275

Arola A et al. (2009) A new approach to correct for absorbing aerosols in OMI UV. *Geophys. Res. Lett.* **36**(22), L22805. doi: 10.1029/2009GL041137

Lindfors A et al. (2009) The PROMOTE UV record: toward a global satellite-based climatology of surface ultraviolet irradiance. *IEEE J. Earth Obs. Remote Sens.* **2**(3), 207–212.

Smedley ARD et al. (2009) Potential of wind turbines to cause epilepsy under different meteorological conditions. *Epilepsia* **51**(7), 1146–1151. doi: 10.1111/j.1528-1167.2009.02402.x

Pissulla D et al. (2009) Comparison of atmospheric spectral radiance measurements from five independently calibrated systems. *Photochem. Photobiol. Sci.* **8**, 516–527.

Smedley ARD et al. (2007) Application of a diode array spectroradiometer to measuring the spectral scattering properties of cloud types in a laboratory. *Atmos. Chem. Phys.* **7**, 5803–5813.

Smedley ARD et al. (2003) Small size particle determination by optical array probe oversampling. *J. Atmos. Ocean. Tech.* **20**(11), 1568–1575.