



Integrated services for Weather and Climate in the Urban Environment

Speaker: **Professor Sue Grimmond**
Department of Meteorology, University of Reading, UK

Chair: **Professor Matthias Roth**
Department of Geography, NUS

Date/Time: Friday, 17 January 2020, 3.30pm

Place: AS2 #02-03

Abstract

Rapid urbanisation (over 6.3 billion urban residents are expected by 2050), combined with more frequent and more extreme climatic conditions, make cities places where most people are exposed to high impact weather (e.g. typhoons, heat stress, poor air quality events). Cities are centres of creativity and economic progress, but polluted air, flooding and other climate impacts mean urban residents also face significant weather, climate and environment-related challenges. Moreover, increasingly dense, complex and interdependent urban systems make cities particularly vulnerable: a single extreme event can lead to a widespread breakdown of a city's infrastructure through inter-linked 'domino' effects.

The complexity of urbanised environments presents enormous challenges to the provision of the necessary climate services to cities and regions and to the measurement and modelling of the urban environment. This presentation will provide an overview of recent research in urban hydrometeorology and climatology undertaken to meet the special needs of cities. Specific examples from London and cities in China will be presented.

About the Speaker



Sue Grimmond is the Met Office Joint Chair and Professor of Urban Meteorology at University of Reading. She joined the [Department of Meteorology](#), University of Reading in August 2013. Previously she was a Chair of Physical Geography and Professor at King's College London, after being Assistant, Associate and Full Professor at Indiana University, Bloomington USA. She completed her undergraduate degree (BSc Hons) at the University of Otago, New Zealand, and graduate degrees (MSc and PhD) at The University of British Columbia. She is a past President of the International Association of Urban Climate ([IAUC](#)) and past Lead Expert for the WMO on Urban and Building Climatology. Sue is on the editorial board of *Urban Climate*; and previously Editor for *Journal of Atmospheric and Oceanic Technology* and a member of several other editorial boards.

She has been awarded a Doctor of Science *Honoris Causa* (Göteborg University), Fellow of the American Meteorological Society (AMS), Isaac Manasseh Meyer Fellowship (NUS), Universitatis Lodziensis Amico Medal (University of Łódź), Helmut E Landsberg Award (AMS), [Luke Howard Award \(IAUC\)](#); Ernest Frolich Fellowship (CSIRO), Japan Society for Promotion of Science Invitation Fellowship (University of Tokyo), and Eminent Professor Visit Award (Monash University). Currently, she is a Visiting Professor at the National Centre for International Research of Low-carbon and Green Buildings (MOST)/ Joint International Research Laboratory of Green Buildings and the Built Environments (MoE) Chongqing University; Visiting Distinguished Professor, Tsinghua University; and Visiting Special Expert, Shanghai Meteorological Bureau.

Current international Scientific Committee membership includes KIT Earth and Environment International Scientific Advisory Board (Germany); the Scientific Committee of the Institute of Urban Meteorology (CMA) (China), ARUP (UK) Project Review Board Climate Services in China, and ICUC-11 (IAUC) and WMO GURME Scientific Advisory Group.

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