POSTER 6: NOMTM - Vegetation in urban canopy parameterizations

Development and implementation of tree processes in an urban canopy model

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POSTER 18: NOMTM - Wind tunnel experiments, and flows and dispersion models

DIPLOS: Dispersion of Localised Releases in a Street Network

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Development of Urban Meteorological LES Model for thermal environment at city scale

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Dispersion from short-duration ground level point gas source in idealised urban canopy

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A parameterization method for evaluating wind pressure difference between buildings' windward and leeward

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An Experimental Study on Exploring the Possibility of Applying Artificial Light as Radiation in Wind Tunnel

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Influence of buildings on the urban atmosphere: need to couple CFD simulations with a building model

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Comparison of surface observation data and simulations of atmospheric flow using CFD model: a case study of Seolleung area in Seoul, South Korea

Ho-Jin Yang, Jong-Mun Choi, Gwang-Jin Lee, Chaeyeon Yi, Joon-Bum Jee, Young-Jean Choi
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CFD analysis of urban wind environment with actual inflow obtained by Doppler lidar measurement

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Large eddy simulation and reduced modeling of UHI intensity and its modulation by heat waves

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Numerical Investigation of Turbulent Flow near Quiescent Liquid Surface

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Understanding and Eliminating Instabilities and 'Rogue Trajectories' in Lagrangian Stochastic Particle Dispersion Models

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An updated evaluation guideline for prognostic microscale wind field models.

David Grawe[1], Wolfgang Bächlin[2], Harald Brünger[3], Joachim Eichhorn[4], Jörg Franke[5], Bernd Leitl[1], Wolfgang J. Müller[6], Dietmar Öttl[7], Mohamed Salim[1], K. Heinke Schlünzen[1], Christoph Winkler[8], Matthias Zimmer[9]

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POSTER 22: NOMTM - Field campaigns, new sensors and methods

A Wavelet-based, Low-cost Method for Massive On-site Diurnal Urban Climate Observation Using Three Globe Thermometers

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Experimental Study on the Suitability of Acrylic and Copper Globe Thermometer for Diurnal Outdoor Mean Radiant Temperature Measurement

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Measurement of roughness parameters over urban heterogeneous canopy

Hirofumi Sugawara[1], Akira Shimizu[1], Tasuki Hirano[1], Shohei Murayama[2], Hiroaki Kondo[2]
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MOBO – An Experimental Network for Urban Heat Island Analysis in a Green District of the Middle-East

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Two EC sites on one urban mast: what can we learn?

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Challenges and results from conducting eddy covariance observations in areas of tall buildings

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Distribution of Aerodynamic Roughness Based on Land Cover and DEM- A Case Study in Shanghai, China

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Comparison on Different Methods to estimate Aerodynamic Parameters in Urban Areas

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Analysis of Suspect Meteorological Data from Quality Control Process in Urban Area

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Investigation of temperature inversions in different conditions in Tomsk according to MTP-5 temperature profiler and the mesoscale Weather Research and Forecasting (WRF) model

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Characterising internal boundary layers forming over an idealised urban surface based on air temperature observations with high spatio-temporal resolution

Atsushi Inagaki[1], Simone Kotthaus[2], Manabu Kanda[1]
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Estimation of roughness parameters of urban area using wind profile data obtained by a Doppler lidar system

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Monitoring of atmospheric turbidity and cloud above Tokyo using ground based network cameras

Daiki Hashikita[1], Ryoko Oda[1], Hirofumi Sugawara[2], Naoko Seino[3]
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Microclimatology of Tropical University Campus: In-situ measurement and GIS-based analysis

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Status and Future of the WISE Urban Meteorological Observation Network

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Cooling mechanism of leaves of urban vegetation

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Estimation of effective roughness length for suburban area of the city of Zagreb

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Ceilometer based retrieval of Shanghai's boundary layer height

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Estimates of surface roughness length and zero-plane displacement height in the urban roughness sublayer

Tae Heon Kwon, Chaeyeon Yi, Moon-Soo Park, Young Jean Choi
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A study on data analysis of densely observed climate variables in Seoul

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A three years long fieldwork experiment to monitor the role of vegetation on the urban climate of the city of Strasbourg, France

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Development of a Dense Climate Monitoring Network for the Georgia Institute of Technology

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Examination of empirical parameter in the thermal image velocimetry

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A new Sky Arrow ERA light aircraft combining LIDAR and air quality payloads for atmospheric monitoring

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3D tree architecture modeling from laser scanning for urban microclimate study

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Bulk Transfer Relations for the Roughness Sublayer Applied at a Sub-urban Area of Zagreb

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Mapping urban ecosystem structure and function using hyperspectral imagery and airborne lidar

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Investigation of urban air temperature and humidity patterns during extreme heat conditions using satellite-derived data

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Low cost air pollution sensors: New perspectives for the measurement of individual exposure?

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A development of mobile monitoring system for urban climatology

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Derivation of an urban materials spectral library through emittance and reflectance spectroscopy

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POSTER 24: NOMTM - Mesoscale and NWP models

The impact of vertical resolution in mesoscale model AROME forecasting of radiation fog
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Numerical study on urban wind environment and thermal climate of cities in cold area with snow cover
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A high-resolution mesoscale meteorological model for investigating the weather phenomena over a limited urbanized area
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Comparison of land cover and land use data for urban climate modelling in Southeast Asian cities – A case study of Johor Bahru
Jochen Kraus[1], Andhang Rakhmat Trihamdani[2], Tetsu Kubota[2], Han Soo Lee[3], Kensuke Kawamura[2]
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Investigation of 3D structure of urban heat island of Moscow city with application of microwave temperature sounding and high-resolution regional modelling with data assimilation
Mikhail Varentsov[1,2], Otto Chkhetiani[2], Leonid Maximenkov[2], Pavel Konstantinov[1]
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POSTER 25: NOMTM - Urban canopy parameterizations

A multi-model and -namelist ensemble for a tropical urban energy balanc
Matthias Demuzere[1,2], Suraj Harshan[2], Leena Jarvi[3], Eric Velasco[4], Matthias Roth[2]
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Simulation of urban fluxes with a 3D canopy model
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Urban Climate Simulations of Dalian Based On WRF Comparing Different Urban Parameterization Schemes
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Development of a new 1D urban canopy model: coherences between surface parameterizations
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Analysis of the impact of rooftop solar panels and green roofs on the structure of the urban boundary layer.
Alberto Martilli[1], Estatio Gutierrez[2], Francisco Salamanca[3]
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Model developments in TERRA_URB, the upcoming standard urban parametrization of the atmospheric numerical model COSMO(-CLM)
Hendrik Wouters[1], Ulrich Blahak[2], Jürgen Helmert[2], Matthias Raschendorfer[2], Matthias Demuzere[1], Barbara Fay[2], Kristina Trusilova[2], Dmitrii Mironov[2], Daniel Reinert[2], Daniel Lüthi[3], Ekaterina Machulskaya[2]
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The ability of mesoscale climate model COSMO-CLM with the Double Canyon urban canopy scheme to simulate the urban heat island in Berlin
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Fast urban heat island modeling
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Exploring the impact of alternative urban design scenarios on microclimate using QUIC-EnvSim
Eric R. Pardyjak[1], Kevin Briggs[1], Matthew Overby[1], Daniel Alexander[1], Brian Bailey[1], Rob Stoll[1], Pete Willemsen[2]
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Visualization and Exploration of Urban Microclimate Simulations using the QUIC EnvSim GPU Framework
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MODELING PARAMETERS AND REMOTE SENSING ACQUISITION OF URBAN CANOPIES
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