The 7th International conference on Urban Climate, Yokohama, Japan

June 29 (Monday) – July 3 (Friday), 2009

Monday 29th June		Room A – 201&202	Monday 29th June		Room B – 203&204
8:00		**Registration**	8:00		
9:00		**Welcome Remarks & Award Ceremony (Room A) –**	9:00		
10:00	S1	**Plenary:** Fumiaki Fujibe (Meteorological Research Institute). Urban warming in Japanese cities and its relation to climate change monitoring. Chair: Tim Oke	10:00		
10:30		**Coffee Break / Poster Session 1**	10:30		**Coffee Break / Poster Session 1**
11:15-12:15		**A1. Measurements of airflow (1). Chair: Janet Barlow**	11:15-12:00		**B1. Building climates. Chair: David Pearlmutter**
11:15	A1-1	Gang Liu (Nanjing University), Jianning Sun. Evidence for impact of inhomogeneity of surface characteristics on momentum flux at the top of the urban canopy	11:15	B1-1	Yuan Huang (Huazhong University of Sci. and Tech.), Hong Chen, Marjorie Musy, Gerard Hegron, Baofeng Li, Xuefan Zhou, Shaung Deng. Vertical urban design forms and their climatic performance
11:30	A1-2	Petra Klein (University of Oklahoma), Jose Galvez, Sean Arms. Comparison of mean flow and turbulence characteristics at different sub-urban measurement sites	11:30	B1-2	Bruno Bueno Unzeta(Massachusetts Institute of Technology), Leslie Keith Norford, Rex Britter. An urban weather generator coupling building simulations with a physically based urban model
11:45	A1-3	Krzysztof Fortuniak (University of Łódź). Selected characteristics of the atmospheric turbulence over a central European city centre - integral statistics -	11:45	B1-3	Qiong Li (South China University of Technology), Qinglin Meng, Lihua Zhao, Yingli Xuan, Akashi Mochida, Hiroshi Yoshino. Study on outdoor thermal environment around the residential buildings in Guangzhou, China with coupled simulation of convection, radiation and conductior
12:00	A1-4	Sven-Erik Gryning (Risoe National Laboratory for Sustainable Energy), Ekaterina Batchvarova. Modelling of the urban wind profile, effect of boundary-layer height, baroclinicity and surface roughness	12:00		
12:15		**Lunch Break**	12:15		**Lunch Break**
13:45-15:30		**A2. Exchange processes (1): Carbon Dioxide. Chair: Sue Grimmond**	13:45-15:15		**B2. Climatic performance of impervious surfaces, water and greenspace. Chair: Yasunobu Ashie**
13:45	A2-1	Leena Järvi (University of Helsinki), Ivan Mammarella, Erkki Siivola, Petri Keronen, Werner Eugster, George Burba, Timo Vesala. Continuous net CO_2 flux measurements in complex urban environment in Helsinki, Finland	13:45	B2-1	Chen-Yi Sun (National Chin-Yi University of Technology), Soushi Kato, Wen-Pei Sung, Hsien-Te Lin, Fu-Jen Wang, Wen-Sheng Ou. A thermal environment investigation of the urban street canyon in a hot and humid city, Taichung City, Taiwan.
14:00	A2-2	Wlodzimierz Pawlak (University of Łódź), Krzysztof Fortuniak, Mariusz Siedlecki. Carbon dioxide flux in the center of Łódź, Poland - analysis of two years eddy covariance measurements data set	14:00	B2-2	Aya Kikuchi (Tohoku University), Naoko Hataya, Akashi Mochida, Hironori Watanabe. Field measurement and CFD analysis on thermal environment and ventilation efficiency in street canyons to investigate the influence of roadside trees and moving automobiles
14:15	A2-3	Ben R Crawford (University of British Columbia), Andreas Christen, Ian McKendry, Derek Van Der Kamp. Vertical profiles of carbon-dioxide in the urban boundary layer - measurements and modeling	14:15	B2-3	Lihua Zhao (South China University of Technology), Xiaoshan Yang, Qinglin Meng. Microclimate effects of different underlying surface types in South China: measurements and model simulations
14:30	A2-4	Dominika Ptak (University of Duisburg-Essen), Wilhelm Kuttler. Near-ground CO_2 concentrations in two German cities with different topographic characteristics	14:30	B2-4	Andreas Pflitsch (Ruhr-University), Markus Brüne, Julia Ringeis, Michael Killing-Heinze. ORGAMIR - Development of a safety system for reaction of an event with emission of hazardous airborne substances - like a terror attack or fire - based on subway climatology
14:45	A2-5	Klaus Kordowski (University of Duisburg-Essen), Wilhelm Kuttler. Influences of an urban park on the turbulent flux of carbon dioxide	14:45	B2-5	Keiko Miyazaki (Waseda University), Yukihiro Masuda, Satoshi Okudome, Hiroto Takaguchi, Koji Kagiya. Hot night investigation under calm clear condition in Tokyo Bay area
15:00	A2-6	Roland Vogt (University of Basel). Five years of eddy covariance measurements of CO_2 flux in the city of Basel	15:00	B2-6	Maria Uchida (Tohoku University), Akashi Mochida, Kiyoshi Sasaki, Takahiro Tonouchi. Field measurements on turbulent flow field and thermal environment in and around biotope with pond and green space
15:15	A2-7	Erik Velasco (National University of Singapore), Shelley Pressley, Rasa Grivicke, Eugene Allwine, Tom Jobson, Hal Westberg, Francisco Hernandez, Rafael Ramos, Luisa T. Molina, Brian Lamb. Eddy covariance flux measurements of trace gases, aerosols and energy from urban Mexico City	15:15		
15:30		**Coffee Break / Poster Session 1**	15:30		**Coffee Break / Poster Session 1**

16:15-18:00		**A3. Exchange processes (2): Energy and mass. Chair: Omduth Coceal**	16:15-18:00		**B3. Climatic performance of urban parks and plants. Chair: Lutz Katzschner**
16:15	A3-1	Jennifer Salmond (University of Auckland), Sonja Bhatia, Lukas Pauscher, Gregoire Pigeon, Dominique Legain, Valery Masson. Vertical transport of heat and pollutants in the urban boundary layer	16:15	B3-1	Ken-ichi Narita (Nippon Institute of technology), Hirofumi Sugawara, Hitoshi Yokoyama, Ikusei Misaka, Dai Matsushima. Cold air seeping from an urban green space, Imperial Palace, in central Tokyo
16:30	A3-2	Laura S. Leo (Salento University), Silvana Di Sabatino, Rex E. Britter, Carlo F. Ratti, A. Dallman, Harindra J. S. Parameterisation of in-canopy and exchange velocities based on the morphometric analysis of real urban canopies	16:30	B3-2	Takehiko Mikami (Teikyo University), Yasushi Sekita. Quantitative evaluation of cool island effects in urban green parks
16:45	A3-3	Dou Junxia (China Meteorological Administration), Liu Weidong, Su Chen, Wang Yaoting, Miao Shiguang. The suburban energy balance in Shunyi, Beijing city	16:45	B3-3	Victor L. Barradas (Universidad Nacional Autonoma de Mexico), Monica Ballinas-Oseguera. On the biometeorological (re)design of urban parks in Mexico City.
17:00	A3-4	Atsushi Inagaki (Tokyo Institute of Technology), Manabu Kanda. Structure of active turbulence over outdoor reduced urban scale model	17:00	B3-4	Alejandra Kurban (San Juan National University), Alberto Papparelli, Mario Cunsulo, Eduardo Montilla, Eliana Rios. The green spaces and their bioclimatic contribution in urban arid zones
17:15	A3-5	Thijs Defraeye (Katholieke Universiteit), Bert Blocken, Jan Carmeliet. Computational modelling of convective heat and moisture transfer at exterior building surfaces	17:15	B3-5	Oded Potchter (Beit Berl Academic College), Limor Shashua-Bar, Pninit Choen, Dalia Boltansky, Yaron Yaakov. The effect of green urban spaces on climate, noise and air pollution in the city of Tel Aviv, Israel
17:30	A3-6	Andreas Christen (University of British Columbia), James A. Voogt. Linking atmospheric turbulence and surface temperature fluctuations in a street canyon	17:30	B3-6	Paul Osmond (University of New South Wales). Application of near-infrared hemispherical photography to estimate LAI of urban vegetation
17:45	A3-7	James A. Voogt (University of Western Ontario), Andreas Christen. Assessment of urban soil moisture using thermal imaging in a residential street canyon	17:45	B3-7	Atsumasa Yoshida (Osaka Prefecture University), Yumi Kataoka, Kosuke NII, Shin-ichi Kinoshita. Energy budget of isolated plant unit in urban space
18:15		Ice Breaker at Room C (205&206)	18:15		Ice Breaker at Room C (205&206)

Tuesday 30th June		Room A – 201&202	Tuesday 30th June		Room B – 203&204
8:15-9:45		**A4. Measurements of airflow (2). Chair: Roland Vogt**	8:15-9:45		**B4. Design and planning (1): Overview. Chair: Emmanuel Rohinon**
8:15	A4-1	Janet Fraser Barlow (University of Reading), Tyrone Dunbar, Eiko Nemitz, Curtis Wood, Martin Gallagher, Fay Davies, Roy Harrison. Boundary layer dynamics over London as observed using Doppler lidar	8:15	B4-1	Gerald Mills (University College Dublin). Urban climatology and its relevance to urban planning and design
8:30	A4-2	A. A. Bidokhti (University of Tehran), N. Pegahfar. Air flow over an urban area with complex topography	8:30	B4-2	Lutz Katzschner (University Kassel), Sofia Thorsson. Microclimatic investigations as a tool for urban design
8:45	A4-3	Aya Hagishima (Kyushu University), Ken-ichi Narita, Jun Tanimoto, Tomohito Kimura. Multipoint measurement on the turbulent characteristics within urban-like canopy using numerous fine wire thermocouples	8:45	B4-3	Yukihiro Masuda (Waseda University), Nobuyuki Takahashi, Toshio Ojima. Development of urban environmental infrastructure
9:00	A4-4	Nuri Serteser (Istanbul Technical University), Vildan Ok. The effects of building parameters on wind velocity and air-flow type in the urban settlements	9:00	B4-4	Edward Y Y Ng (Chinese University of Hong Kong), Ren Chao, Lutz Katzschner, Raymond Yau. Urban climatic studies for hot and humid tropical coastal city of Hong Kong
9:15	A4-5	Matteo Carpentieri (University of Surrey), Alan G. Robins. Wind tunnel experiments of flow and dispersion in a real urban area	9:15	B4-5	Keisuke Mouri (Tohoku University), Akashi Mochida, Hironori Watanabe, Kiyoshi Sasaki. Zoning for selecting appropriate countermeasures against urban warming based on heat balance analysis - Clarification of the distributions of total heat budget and air change rate in urban space-
9:30	A4-6	Hiroshi Takimoto (Tokyo Institute of Technology), Ayumu Sato, Shiho Onomura, Manabu Kanda. PIV measurements of atmospheric turbulence within and above an outdoor urban scale model	9:30	B4-6	Toshiaki Ichinose (National Institute for Environmental Studies / Nagoya University), Lyong-Tae Lee, Futoshi Matsumoto, Yohei Shiraki, Ippei Harada. Mechanism of mitigation of atmospheric environment by a large restoration of inner-city river (Cheong-Gye Stream in Seoul)
9:45		**Coffee Break / Poster Session 2**	9:45		**Coffee Break / Poster Session 2**
10:30-11:45		**A5. Measurements of airflow (3). Chair: Andreas Christen**	10:30-11:30		**B5. Design and planning (2): Climate maps and tools. Chair: Masakazu Moriyama**

10:30	A5-1	Sheikh Ahmad Zaki Sheikh Salim (Kyushu University), Yoshiki Kikuchi, Manato Yamaguchi, Aya Hagishima, Jun Tanimoto. Aerodynamic parameters of urban building arrays with random geometry	10:30	B5-1	Juergen Baumueller (University of Stuttgart), Heide Esswein, Ulrich Hoffmann, Ulrich Reuter, Silvia Weidenbacher, Thorsten Nagel, Thomas Flassak. Climate Atlas of a Metropolitan Region in Germany based on GIS
10:45	A5-2	Sergej S. Zilitinkevich (Helsinki University), Ivan Mammarella, Alexander A. Baklanov, Sylvain M. Joffre. The effect of stratification on the aerodynamic roughness length and displacement height	10:45	B5-2	Claire Louise Smith (University of Manchester), Sarah J Lindley, Geoff J Levermore, Susan E Lee. A GIS-based decision support tool for urban climate risk analysis and exploration of adaptation options, with respect to urban thermal environments
11:00	A5-3	Rostislav D. Kouznetsov (Obukhov Institute of Atmospheric Physics), Margarita A. Kallistratova, Dmitrii D. Kuznetsov. Influence of the urban environment on low-level jets	11:00	B5-3	Takahiro Tanaka (Hiroshima University), Takashi Ogasawara, Harumi Koshi, Satoshi Yoshida. Urban environmental climate maps for supporting urban-planning related work of local governments in Japan: Case studies of Yokohama and Sakai
11:15	A5-4	Klára Bezpalcová (Czech Academy of Sciences), Masaaki Ohba, Zbyněk Jaňour. Influence of building packing density and building height distribution on vertical mass transport	11:15	B5-4	Hirotoshi Yoda (Kinki University). Climate Atlas in Fukuoka City
11:30	A5-5	Ayumu Sato (Central Research Institute of Electric Power Industry), Takenobu Michioka, Hiroshi Takimoto, Manabu Kanda. Field experiments of pollutant dispersion within an array of obstacles	11:30	B5-5	Anisha Noori Kakon (Saga University), Nobuo Mishima. The sky view factor effect on the microclimate of a city environment: A case study of Dhaka City
12:00	S2	**Plenary:** Greg Carmichael (University of Iowa). Regional and global perspectives of megacity air pollution. Chair: Howard Bridgman	12:00		
12:30		**Lunch Break**	12:30		**Lunch Break**
14:00-15:30		**A6. CFD of airflow and dispersion (1): Effects of stratification. Chair: Tetsuji Yamada**	14:00-15:00		**B6. Design and planning (3): Outdoor comfort, wind climate. Chair: Edward Ng**
14:00	A6-1	Abel Tablada de la Torre (Katholieke Universiteit Leuven), Staf Roels. Numerical study on the influence of wind and thermal stack on street canyon airflow pattern	14:00	B6-1	Marcus Oliver Letzel (Leibniz Universität Hannover), Carolin Weinreis, Edward Ng, Siegfried Raasch. LES studies on pedestrian level ventilation in Hong Kong
14:15	A6-2	**Xian-Xiang Li (Singapore-MIT Alliance for Research and Technology), Tieh-Yong Koh, Rex Britter, Chun-Ho Li, Leslie K. Norford, Dara Entekhabi, Dennis Y. C. Leung. Large-eddy simulation of flow field and pollutant dispersion in urban street canyons under unstable**	14:15	B6-2	Erik Johansson (Lund University), Moohammed Wasim Yahia. Outdoor thermal comfort and urban design in warm-humid Guayaquil, Ecuador
14:30	A6-3	Hirofumi Hattori (Nagoya Institute of Technology), Takatoshi Umehara, Yasutaka Nagano. Predictions and evaluations of various turbulent boundary layers using LES	14:30	B6-3	Abraham Yezioro (Technion - IIT). The influence of various urban typologies on wind conditions in open urban spaces
14:45	A6-4	Xiaoming Cai (University of Birmingham). Differential wall heating in street canyons: Flow characteristics	14:45	B6-4	Chun-Ming Hsieh (National Cheng-Kung University), Kang-Li Wu, Wei-Cheng Li, Ha-Wang Huang. Implication of land use control on urban ventilation- A case study in rail station areas of Kaohsiung City
15:00	A6-5	Seung-Bu Park (Seoul National University), Jong-Jin Baik. LES study of thermal effects on turbulent flow and dispersion in a street canyon	15:00		
15:15	A6-6	Lina Yang (The University of Hong Kong), Yuguo Li. Ventilation potential by thermal buoyancy in an urban city: Numerical simulation and field experiment study	15:15		
15:30		**Coffee Break / Poster Session 2**	15:30		**Coffee Break / Poster Session 2**
16:15-17:30		**A7. CFD of airflow and dispersion (2). Chair: Hiroaki Kondo**	16:15-17:45		**B7. Forecasts for the urban environment. Chair: Evyatar Erell**
16:15	A7-1	Yasuyuki Ishida (Tohoku University), Yoshinobu Endo, Akashi Mochida, Taichi Shirasawa, Ryuichiro Yoshie, Hideyuki Tanaka. Large eddy simulation of flow and pressure fields around buildings in high dense cities -Effects of nonuniformity of building heights on drag force and momentum transport-	16:15	B7-1	Anurag Kandya (Indian Institute of Technology Delhi), Manju Mohan. Forecasting the urban air quality using various statistical techniques
16:30	A7-2	Omduth Coceal (University of Reading), T. Glyn Thomas, Stephen E. Belcher. Numerical simulation of turbulence and dispersion over groups of buildings	16:30	B7-2	Tetsuya Takemi (Kyoto University), Kenichi Tatsumi, Hirohiko Ishikawa. A high-resolution numerical analysis of the effects of complex topography to disastrous rainstorm development over an urban area: A case study of the 28 July 2008 severe local rain events in the Kinki region
16:45	A7-3	Jan Kleissl (University of California), Long Sun. Effect of hilly urban morphology on dispersion characteristics in the urban boundary layer	16:45	B7-3	Eyal Fattal (Israel Institute for Biological Research), Hadassah Kaplan, Ziv Klausner. The similar days method for predicting wind vectors
17:00	A7-4	Akihiko Nakayama (Kobe University), Masanobu Senshuu, Hiroshi Noda. Simulation of airflow over topography with building structures using curvilinear immersed boundary method	17:00	B7-4	Shinji Yoshida (University of Fukui), Masayuki Oguro. Investigation on a method incorporating inhomogeneous environmental conditions into CFD analysis of outdoor thermal environment coupled with multi-fractional human thermoregulation model
17:15	A7-5	Marieta Cristina L. Castillo (Tokyo Institute of Technology), Jin Zhang, Manabu Kanda, Marcus O. Letzel, Atsushi Inagaki. Coherent structures of a neutrally stratified urban boundary layer using large-eddy simulation	17:15	B7-5	Yukiko Kishi (University of Fukui), Shinji Yoshida. Evaluation of pedestrian space in summer season using CFD analysis of outdoor thermal environment coupled with multi-fractional human thermoregulation mode

17:30			17:30	B7-6	Jie Ma (Tsinghua University), Xiaofeng Li, Borong Lin, Yingxin Zhu. Annual analysis of outdoor thermal comfort
19:30		**Bay Cruise**	19:30		**Bay Cruise**
Wednesday 1st July		Room A – 201&202	Wednesday 1st July		Room B – 203&204
8:30-9:45		**A8. CFD of airflow and dispersion (3). Chair: Xiaoming Cai**	8:15-9:45		**B8. Impacts of climate change on cities (1). Chair: Fumiaki Fujibe**
			8:15	B8-1	Mohamed Elnour Yassen Ahmed (University of Dalanj), Ahmed Hamed Elfaig. Rainfall variations and trends in Greater Kordofan: as indicators of climatic change in the Sudan
8:30	A8-1	Jose Luis Santiago (CIEMAT), Alberto Martilli. Numerical modeling of wind flow over urban areas. Evaluation and improvement of urban parameterization using CFD simulations	8:30	B8-2	Fujio Kimura (University of Tsukuba), Sachiho Adachi. Dynamical downscaling of global climate change for urbanizing Kanto Plain
8:45	A8-2	Yuya Baba (Earth Simulator Center), Keiko Takahashi. High performance scheme and characteristics for fully compressible flows resolving buildings in urban area	8:45	B8-3	Barbara Frueh (Deutscher Wetterdienst), Paul Becker, Thomas Deutschlaender, Johann-Dirk Hessel, Meinolf Kossmann, Joachim Namyslo, Marita Roos, Uwe Sievers. Impact of climate change on the heat load in Frankfurt metropolitan region
9:00	A8-3	Naoko Konno (Tohoku University), Yuichi Tabata, Aya Kikuchi, Akashi Mochida, Takashi Maruyama, Aya Hagishima, Jun Tanimoto, Yoshiki Kikuchi. CFD prediction of turbulent flow under the influence of moving automobiles in street canyons	9:00	B8-4	Chandana Mitra (University of Georgia), Marshall Shepherd. The dynamics of urban growth of Kolkata, India and its influence on precipitation
9:15	A8-4	Mohamed Hefny (The University of Tokyo), Ryozo Ooka. Numerical simulation of turbulent flow inside and around covered roadway	9:15	B8-5	Mikhail A. Lokoshchenko (Lomonosov Moscow State University), Ekaterina L. Vasilenko. Change of air temperature in Moscow during last two and quarter centuries
9:30	A8-5	Tetsuji Yamada (Yamada Science & Art Corporation). Numerical simulations of air flows and transport and diffusion from wind tunnel to terrain scales	9:30	B8-6	Akira Urano (Technology Ctr. Taisei Corporation). Influence of global warming on office building cooling loads
9:45		**Coffee Break / Poster Session 3**	9:45		**Coffee Break / Poster Session 3**
10:30-12:00		**A9. CFD of airflow and dispersion (4). Chair: Jan Kleissl**	10:30-12:00		**B9. Impacts of climate change on cities (2). Chair: Michael Bruse**
10:30	A9-1	Adil Rasheed (Solar Energy and Building Physics Laboratory), Darren Robinson, Chidambram Narayanan, Djamel Lakehal. On the effects of complex urban geometries on mesoscale modeling	10:30	B9-1	Andreas Matzarakis (University of Freiburg), Christina Endler. Climate and tourism: Urban tourism potential in Freiburg, Germany
10:45	A9-2	Ryuichiro Yoshie (Tokyo Polytechnic University), Akashi Mochida, Yoshihide Tominaga, Taichi Shirasawa, Hideyuki Tanaka. AIJ Cooperative project for practical applications of CFD to air ventilation, pollutant and thermal diffusion in urban areas	10:45	B9-2	Hofit Ben-Shalom (Ben-Gurion University of the Negev), Oded Potchter, Haim Tsoar. The effect of the urban heat island and global warming on thermal discomfort in a desert city - the case of Beer Sheva, Israel
11:00	A9-3	Ryozo Ooka (The University of Tokyo), Taiki Sato, Shuzo Murakami. The effect of urban structures on sea breeze penetration over the Kanto Plain - Analysis based on mean kinetic energy model -	11:00	B9-3	Sofia Thorsson (University of Gothenburg), Fredrik Lindberg, Jesper Bjorklund, Bjorn Holmer. Potential increase in heat stress in Swedish cities due to climate change: the impact of built structure on thermal comfort
11:15	A9-4	Zhiwen Luo (The University of Hong Kong), Yuguo Li. Influence of plant canopy on the katabatic winds	11:15	B9-4	Julien Desplat (Meteo-France), Jean-Luc Salagnac, Raphaelle Kounkou-Arnaud, Aude Lemonsu, Morgane Colombert, Mireille Lauffenburger, Valery Masson. EPICEA Project [2008-2010], Multidisciplinary study of the impacts of climate change on the scale of Paris.
11:30	A9-5	Takayuki Tokairin (Toyohashi University of Technology), Asep Sofyan, Toshihiro Kitada. Numerical study on temperature variation in the Jakarta area due to urbanization	11:30	B9-5	Mark P McCarthy (Met Office, UK), Martin Best, Richard Betts. Cities under a changing climate
11:45	A9-6	Takashi Maruyama (Kyoto University), Junji Maeda, Eriko Tomokiyo, Masuo Nakano, Sachie Kanada. Numerically simulated strong wind fields of typhoon Songda by mesoscale climate model	11:45	B9-6	Jorge E González (City College of New York), Daniel Comarazamy. Total climate change in tropical coastal urban areas: Urbanization + green house gases
12:10	S3	**Plenary:** David Sailor (Portland State University). Anthropogenic heat and moisture emissions in the urban environment. Chair: Toshiaki Ichinose	12:10		

12:40		**Lunch Break**	12:40		**Lunch Break**
14:00-15:15		**A10. Models of the urban atmosphere (1): Mesoscale. Chair: Hiroyuki Kusaka**	14:00-15:15		**B10. Low carbon cities (1). Chair: Andreas Matzarakis**
14:00	A10-1	Yoichi Kawamoto (the University of Tokyo), Ryozo Ooka. Accuracy validation of urban climate analysis model using MM5 incorporating a multi-layer urban canopy model	14:00	B10-1	Hinako Motohashi (Technology Center, Taisei Corporation), Masayuki Oguro, Hitoshi Fukao. Study of effects of building layout on carbon dioxide emissions
14:15	A10-2	David Douglas Flagg (York University). Sensitivity of mesoscale urban boundary layer meteorology to uncertainty in the urban morphology	14:15	B10-2	Tatsuya hayashi (NIKKEN SEKKEI Research Institute), Hideharu Niwa, Katashi matsunawa. Study on energy system simulation tool for urban design
14:30	A10-3	Kohin Hirano (National Research Institute for Earth Scienece and Disaster Prevention), Yasunobu Ashie. Comprehensive analysis of urban effects on local climate in Tokyo Metropolitan Region using an urban mesoscale numerical model	14:30	B10-3	Rohinton Emmanuel (Glasgow Caledonian University). Sustainable urbanity and urban climate change: Amelioration of UHIs as a quality-of-life agenda for tropical mega-cities
14:45	A10-4	Fei Chen (National Center for Atmospheric Research), Mukul Tewari, Kevin Manning, Shiguang Miao, Alberto Martilli, Susanne Grossman-Clarke, Hiroyuki Kusaka. Development of the integrated WRF/urban modeling system and its application to urban environmental problems	14:45	B10-4	Yukiko Yoshida (National Institute for Environmental Studies/ Tokyo University of Science), Toshiaki Ichinose. Research and development of the information system for building-blocks environmental evaluation
15:00	A10-5	Masakazu Moriyama (Kobe University), Shunsuke Nakajima, Takahiro Tanaka, Hideki Takebayashi, Nanako Kitao. Countermeasures of urban heat island by the conversion of urban geometry using meso-scale meteorological model	15:00	B10-5	Wilhelm Kuttler (University of Duisburg-Essen). Urban measures against global climate change
15:15		**Coffee Break / Poster Session 3**	15:15		**Coffee Break / Poster Session 3**
16:00-18:00		**A11. Models of the urban atmosphere at all scales (1). Chair: Valery Masson**	16:00-17:30		**B11. Low carbon cities (2). Chair: Jorge E Gonzalez**
16:00	A11-1	Ning Zhang (Nanjing University), Weimei Jiang, Yan Chen. Numerical simulation of urbanization impact on local and regional climate over Yangzi River Delta, China	16:00	B11-1	Fazia Ali-Toudert (TU Dortmund University). Energy efficiency of urban buildings: Significance of urban geometry, building construction and climate conditions
16:15	A11-2	Kyung-Hwan Kwak (Seoul National University), Jong-Jin Baik, Sang-Hyun Lee. Modeling the diurnal variation of flow in a street canyon	16:15	B11-2	Tiziana Poli (Politecnico di Milano), Luca Pietro Gattoni, Riccardo Paolini, Giorgio Pansa, Maurizio Favaron, Samantha Pilati. The influence of the urban heat island over building energy demand: the case of Milan
16:30	A11-3	Hiroaki Kondo (National Institute of Advanced Industrial Science and Technology), Kenji Horiuchi, Yoneko Hirano, Norihisa Maeyama, Kazuhiko Ogata, Satoru Iizuka, Tateki Mizuno. Attempt to make guideline to use CFD model for atmospheric environmental assessment in urban area in Japan	16:30	B11-3	Kazuki Yamaguchi (Tokyo Electric Power Company), Tomohiko Ihara, Yukihiro Kikegawa, Yutaka Genchi, Yasuyuki Endo. Thermal environment and energy evaluation for heat island - Countermeasure in different residential areas
16:45	A11-4	Pavel I. Konstantinov (Lomonossov Moscow State University), Alexander V. Kislov. Simulation of climate of the Moscow region in XXI century with simple urban canopy model	16:45	B11-4	Shinji Yamamura (Nikken Sekkei Research Institute), Osamu Nagase. Study on methodology about cool urban development for creating cool spots and reducing CO2 emission in urban area
17:00	A11-5	Atsushi Moribe (Osaka Prefecture University), Ryusuke Yasuda, Atsumasa Yoshida. Influence of the urban canopy effect in Osaka city area on the surrounding meteorological fields	17:00	B11-5	Yujiro Hirano (Nagoya University), Hidefumi Imura, Toshiaki Ichinose. Effects of the heat island phenomenon on energy consumption in commercial and residential sectors of metropolitan Tokyo.
17:15	A11-6	CSB Grimmond (King's College London), M Blackett, M Best, J-J Baik, S Belcher, SI Bohnenstengel, I Calmet, F Chen, A Dandou, K Fortuniak, M Gouvea, R Hamdi, M Hendry, H Kondo, S Krayenhoff, S-H Lee, T Loridan, A Martilli, V Masson, S Miao, K Oleson, G Pigeon, A Porson, F Salamanca, G-J Steeneveld, M Tombrou, J Voogt, N Zhang. The international urban energy balance comparison project: Initial results from phase 2	17:15	B11-6	Yoshiaki Kitaya (Osaka Prefecture University), Masashi Yamamoto, Toshio Shibuya, Hiroaki Hirai. Rooftop farming with sweet potato for reducing urban heat island effects and producing food and fuel materials
17:30	A11-7	Edson Roberto Marciotto (Harvard School of Public Health). Impact of urban verticalization on urban surface energy budget: a modeling study			
17:45	A11-8	Evyatar Erell (Ben Gurion University), Ingegard Eliasson, Sue Grimmond, Brian Offerle, Terry Williamson. Incorporating spatial and temporal variations of advected moisture in the Canyon Air Temperature (CAT) model			
19:30		**Banquet**	19:30		Banquet

Thursday 2nd July	Room A – 201&202	Thursday 2nd July	Room B – 203&204

8:15-9:45		**A12. Models of the urban atmosphere (2): TEB development and applications. Chair: Matthias Roth**	8:15-9:45		**B12. Urban impacts on precipitation (1). Chair: Gerald Mills**
8:15	A12-1	Rafiq Hamdi (Royal Meteorological Institute of Belgium), Valery Masson, Gregoire Pigeon, Aude Lemonsu. Inclusion of a drag approach in the Town Energy Balance (TEB) scheme: offline 1-D evaluation in a street canyon	8:15	B12-1	Shiguang Miao (China Meteorological Administration), Fei Chen, Qingchun Li, Shuiyong Fan. Impacts of urbanization on a summer heavy rainfall in Beijing
8:30	A12-2	Valéry Masson (CNRS Meteo-France), Aude Lemonsu, Grégoire Pigeon, Rafiq Hamdi. Inclusion of a multi-layer drag approach scheme (and other advances) in TEB urban scheme	8:30	B12-2	Hiroyuki Kusaka (University of Tsukuba), Fujio Kimura, Keiko Nawata, Takuro Hanyu, Yukako Miya. The chink in the armor: Questioning the reliability of sensitivity experiments in determining urban effects on precipitation patterns
8:45	A12-3	Stéphane Bélair (Environment Canada), Maria Abrahamowicz, Sylvie Leroyer, Eric Christensen, Yi-Ching Chung, Aude Lemonsu, Jocelyn Maihot, Ian Strachan. Evolution of snow packs in the Town Energy Balance (TEB) model, based on results at EPiCC rural, suburban, and urban sites	8:45	B12-3	Cheng-Ku Yu (Chinese Culture University), Yi-Jian Yan. Characteristics of summertime afternoon precipitation in the Taipei urban area during 1998-2007
9:00	A12-4	Grégoire Pigeon (Meteo France-CNRS), Mark A. Moscicki, James A. Voogt, Valéry Masson. Simulation of fall and winter surface energy balance over a dense urban area using the TEB scheme	9:00	B12-4	Makoto Nakayoshi (Tokyo Institute of Technology), Ryo Moriwaki, Toru Kawai, Manabu Kanda. Mechanism on urban rainfall interception
9:15	A12-5	Sylvie Leroyer (Mc Gill University), Jocelyn Mailhot, Stephane Belair, Ian B. Strachan. The Canadian urban off-line modeling system applied on the Montreal metropolitan area : which benefits for weather forecasting and Urban Heat Island evaluation ?	9:15	B12-5	Fumiaki Kobayashi (National Defense Academy), Maki Imai, Hirofumi Sugawara, Manabu Kanda, Hitoshi Yokoyama. Generation of cumulonimbus first echoes in the Tokyo Metropolitan Region on mid-summer days
9:30	A12-6	Aude Lemonsu (CNRS-MeteoFrance), Stephane Belair, Jocelyn Mailhot, Sylvie Leroyer. Evaluation of the TEB model under cold and snowy conditions for the Montreal Urban Snow Experiment (MUSE) 2005	9:30	B12-6	Ryo Onishi (Earth Simulator Center), Keiko Takahashi. Impact of urban aerosols on convective precipitations
9:45		**Coffee Break / Poster Session 4**	9:45		**Coffee Break / Poster Session 4**
10:30-12:00		**A13. Models of the urban atmosphere (3): Thermal and wind environment. Chair: Jenny Salmond**	10:30-11:45		**B13. Urban impacts on precipitation (2). Chair: Akashi Mochida**
10:30	A13-1	Sylvia Ingrid Bohnenstengel (University of Reading), Aurore Porson, Peter A. Clark, Mike Davies, Stephen E. Belcher. Spatial structure of the London urban heat island	10:30	B13-1	Sangchan Limjirakan (Chulalongkorn University), Atsamon Limsakul, Thavivongse Sriburi. Changes in extreme rainfall events in urbanized areas of Thailand
10:45	A13-2	Kundan Lal Shrestha (Osaka University), Akira Kondo, Chikara Maeda, Akikazu Kaga, Yoshio Inoue. Numerical simulation of urban heat island using gridded urban configuration and anthropogenic heat data generated by a simplified method	10:45	B13-2	Tadao Inoue (National Institute for Environmental Studies), Fujio Kimura. Fair-weather cumulus clouds forming over urban areas around Tokyo
11:00	A13-3	Yukihiro Kikegawa (Meisei University), Yukitaka Ohashi, Yoshinori Shigeta, Tomohiko Ihara, Hiroaki Kondo. Observed and simulated impacts of anthropogenic heat on air temperatures in downtown Tokyo and Osaka	11:00	B13-3	Anja Pagenkopf (Humboldt-Universitat zu Berlin). Verification of urban-induced precipitation for a central European major city
11:15	A13-4	Ryosaku Ikeda (Tsukuba University), Hiroyuki Kusaka. Development of the simple multi-layer urban canopy models	11:15	B13-4	Yoshihide Tominaga (Niigata Institute of Technology), Tsubasa Okaze, Akashi Mochida, Hiroshi Yoshino, Yu Ito. Applicability of CFD prediction to three-dimensional snowdrift around a cubic building model
11:30	A13-5	Yukiko Hisada (Kyushu University), Takayoshi Uechi, Nobuhiro Matsunaga. A relationship between the characteristics of sea breeze and land-use in Fukuoka metropolitan area	11:30	B13-5	Peter Hoffmann (University of Hamburg), K. Heinke Schlunzen, Gudrun Rosenhagen. Observational study on the urban heat island and the urban impact on precipitation of Hamburg
11:45	A13-6	Teddy Holt (Naval Research Laboratory), Julie Pullen. An examination of urban heat island and sea breeze interactions using high-resolution coastal-urban mesoscale ensembles	11:45		
12:10	S4	**Plenary:** Yasunobu Ashie (Building Research Institute). Application of the Earth Simulator to a climate-sensitive design for the Tokyo Bay area. Chair: Wilhem Kuttler	12:10		
12:40		**Lunch Break**	12:40		
14:00-15:45		**A14. Air pollution meteorology and modeling. Chair: Petra Klein**	14:00-15:45		**B14. Urban human biometeorology (1). Chair: Sofia Thorsson**
14:00	A14-1	Howard A. Bridgman (University of Newcastle). Air quality management strategies for urban atmospheres	14:00	B14-1	Helmut Mayer (Albert-Ludwigs-University of Freiburg), Jutta Holst, Florian Imbery. Human thermal comfort within urban structures in a central European city
14:15	A14-2	Tim Appelhans (University of Canterbury). An air pollution climatology for Christchurch, New Zealand	14:15	B14-2	Fredrik Lindberg (University of Gothenburg), Sofia Thorsson. SOLWEIG - the new model for calculating the mean radiant temperature
14:30	A14-3	Nobumitsu Tsunematsu (Chiba University), Yasuhiro Murayama, Hironori Iwai, Motoaki Yasui, Shoken Ishii, Kohei Mizutani, Tomohiro Nagai, Tetsu Sakai, Toshiyuki Murayama. The influence of local meteorological phenomena on the behavior of aeolian dust over the Tokyo metropolitan area	14:30	B14-3	Michael Bruse (University of Mainz). Analysing human outdoor thermal comfort and open space usage with the Multi-Agent -System BOTworld

14:45	A14-4	Hadas Saaroni (Tel Aviv University), Baruch Ziv, Tatiana Uman. The role of the synoptic conditions in the NOx pollution over the metropolitan area of Tel-Aviv, Israel	14:45	B14-4	Sookuk Park (University of Victoria), Stanton E. Tuller. Modeling human radiation exchange in outdoor urban environments
15:00	A14-5	Zbigniew Andrzej Caputa (University of Silesia), Mieczysław R. Leśniok. Interactions between urban climate and air pollutions in Katowice Region (Central Europe, Southern Poland)	15:00	B14-5	Chao Ren (The Chinese University of Hong Kong), Edward Ng. An initial investigation on microclimatic environment in high density city-Spot field measurement study in Hong Kong
15:15	A14-6	Takenobu Michioka (Central Research Institute of Electric Power Industry), Ayumu Sato. Numerical simulations of gas dispersion in a residential area	15:15	B14-6	Leonardo Marques Monteiro (University of Sao Paulo), Marcia Peinado Alucci. Thermal comfort index for the assessment of outdoor urban spaces in subtropical climates
15:30	A14-7	Hiromasa Nakayama (Japan Atomic Energy Agency), Tetsuya Takemi, Haruyasu Nagai. LES analysis of plume dispersion through urban-like building arrays	15:30	B14-7	Limor Shashua-Bar (Ben-Gurion University), David Pearlmutter, Evyatar Erell. Microscale vegetation effects on outdoor thermal comfort in a hot-arid environment
15:45		**Coffee Break / Poster Session 4**	15:45		**Coffee Break / Poster Session 4**
16:30-18:30		**A15. Urban aerosols and photochemical pollutants. Chair: Erik Velasco**	16:30-18:30		**B15. Urban human biometeorology (2). Chair: Helmut Mayer**
16:30	A15-1	He Hong-di (City University of Hong Kong), Lu Wei-zhen. Measurements of particulate matter at intersection in Hong Kong	16:30	B15-1	Tzu-Ping Lin (National Formosa University), Richard de Dear, Andreas Matzarakis, Ruey-Lung Hwang. Prediction of thermal acceptability in hot-humid outdoor environments in Taiwan
16:45	A15-2	Mohanraj Rangaswamy (Bharathidasan University), S. Dhanakumar, G. Solaraj. Urbanization and airborne fine particulate matter in major urban regions of Tamilnadu, India	16:45	B15-2	Noemi Kantor (University of Szeged), Lilla Egerhazi, Agnes Gulyas, Janos Unger. The visitors' attendance on a square according to the thermal comfort conditions - case study in Szeged (Hungary)
17:00	A15-3	Stephan Weber (University of Duisburg-Essen). Effects of turbulent flow in the boundary layer on suburban aerosol number concentrations and size distributions	17:00	B15-3	Kiyoshi Sasaki (Shimizu Corporation), Helmut Mayer, Akashi Mochida, Maria Uchida, Takahiro Tonouchi. Field measurement on thermal comfort in outdoor locations -Comparison of SET* and PET based on questionnaire survey -
17:15	A15-4	Min-Wook Kim (Seoul National University), Jong-Jin Baik, Sung Hoon Park. Modeling aerosol dispersion in a street canyon using a coupled CFD-aerosol model	17:15	B15-4	Alessandra R. Prata Shimomura (University of Sao Paulo), Leonardo Marques Monteiro, Anesia Barros Frota. Physiological Equivalent Temperature index applied to wind tunnel erosion technique pictures for the assessment of pedestrian thermal comfort
17:30	A15-5	Ryusuke Yasuda (Osaka Prefecture University), Fumisato Nakagawa, Atsumasa Yoshida. Numerical study on summer-time photochemical pollution in Osaka area -Influence of surface albedo and NMVOC-NOx ratio on oxidants production-	17:30	B15-5	Katrin Gabriele Burkart (Humboldt Universitat zu Berlin), Wilfried Endlicher. Bio-meteorological and air pollution conditions in the megacity of dhaka, bangladesh and their effects on public health of urban poor population groups
17:45	A15-6	Mai Khiem (The University of Tokyo), Ryozo Ooka, Hong Huang, Hiroshi Hayami, Hiroshi Yoshikado. Analysis of relationship between changes of meteorological conditions and the variation of O3 levels in summer over the central Kanto area	17:45	B15-6	Ana Maria Monteiro (Porto University). Climate - air quality - health: an (un)desirable nexus of causality for man?
18:00	A15-7	Karim Movassaghi (University of Isfahan), Mario Mariani, Mario Vincenzo Russo, Pasquale Avino. Levels of peroxyacetil nitrate in Rome urban air	18:00	B15-7	Francisco Mendonca (University Federal Parana), Eliane Dumke. Urban cool discomfort and poverty in Curitiba / Brazil
18:15	A15-8	Hiroaki Minoura (Japan Petroleum Energy Center), Akiyoshi Ito. The NO2 behavior analysis in a roadside atmosphere for the validation of the RSAQSM	18:15	B15-8	Ahmed Adedoyin Balogun (Federal University of Technology), Ifeoluwa A Balogun, Jimmy O Adegoke. Variability of carbon monoxide and bioclimatic conditions in Akure, Nigeria - A comparison of urban and rural measurements

Friday 3rd July		Room A – 201&202	Friday 3rd July		Room B – 203&204
8:15-9:45		**A16. Models of the urban atmosphere at all scales (2). Chair: Aude Lemonsu**	8:15-9:30		**B16. Urban heat islands (1). Chair: Julia Hidalgo**
8:15	A16-1	Young-Hee Ryu (Seoul National University), Jong-Jin Baik, Sang-Hyun Lee. A new single-layer urban canopy model for use in mesoscale atmospheric models	8:15	B16-1	Yingjiu Bai (Tohoku University of Community Service and Science), Jehn-Yih Juang, Akihiko Kondoh. Analysis on the relationship between the change of urban climate and urban development in Taipei
8:30	A16-2	Bjoern Hendrik Fock (University of Hamburg), Peter Hoffmann, K. Heinke Schluenzen. High resolution simulations for urban areas	8:30	B16-2	Melissa Hart (University of Hong Kong), David J. Sailor, Chien Tat Low. An evaluation of intra-urban variability of near-surface urban air temperatures and humidity in Hong Kong
8:45	A16-3	Francisco Salamanca Palou (CIEMAT), Alberto Martilli. A detailed study of the different turbulent fluxes in an urban environment considering a Building Energy Model coupled with an Urban Canopy Parameterization (one dimension off-line simulations)	8:45	B16-3	Abdulhamed A Ibrahim (Ahmadu Bello University), Ahmed A Balogun, Edward O Iguisi, I C Nduka. Evaluation of a low-cost temperature measurement system for the investigation of the characteristics of the urban canopy heat island in Kano city, Nigeria
9:00	A16-4	Keiko Takahashi (JAMSTEC), Yuya Baba, Ryo Onishi, Takeshi Sugimura. Ultra-high resolution and nonstationary simulation to understand heat storage mechanism in urban area	9:00	B16-4	Daisuke Narumi (Osaka University), Minoru Mizuno. Development of the weighted heat flux evaluation system for the purpose of mitigating urban heat island

9:15	A16-5	Satoshi Sakai (Kyoto University), Isao Iizawa, Masanori Onishi, Miki Nakamura, Kei Kobayashi, Makoto Mitsunaga, Kimie Furuya. Fractal geometry of the ground surface and the urban heat island	9:15	B16-5	Yoshiki Junimura (Yamanashi Institute of Environmental Sciences), Tadashi Uno, Hironori Watanabe. Actual conditions of thermal and wind environment in the Kofu basin
9:30	A16-6	Qinglin Meng (South China University of Technology), Lifan Shu, Yufeng Zhang, Lei Zhang. Improvement on the predictive model of urban air temperature in summer	9:30	B16-6	Brent C. Hedquist (Arizona State University), Silvana Di Sabatino, Harindra J.S.Fernando, Laura S. Leo, Anthony J. Brazel. Results from the Phoenix Arizona urban heat island experiment
9:45		**Coffee Break / Poster Session 5**	9:45		**Coffee Break / Poster Session 5**
10:30-12:00		**A17. Remote sensing (1). Chair: James Voogt**	10:30-12:00		**B17. Urban heat islands (2). Chair: Melissa Hart**
10:30	A17-1	Lilly Rose Amirtham (Sathyabama University), Monsingh David Devadas. Analysis of land surface temperature and land use / land cover types using remote sensing imagery - A case in Chennai city, India.	10:30	B17-1	Ekaterina Alexandrovna Vorobyeva (Central Aerological Observatory), Evgeny Allanovich Miller, Evgeny Nikolaevich Kadygrov. Study of seasonal and interannual features of urban island vertical structure above Moscow city
10:45	A17-2	Corinne Myrtha Frey (University of Basel), Eberhard Parlow, Roland Vogt, Magdy A. Wahab. Comparison of in situ and remotely sensed radiation and heat fluxes of the megacity of Cairo/Egypt	10:45	B17-2	Julia Hidalgo (Labein-Tecnalia), Valery Masson, Luis Gimeno. Scaling the daytime urban-breeze circulation
11:00	A17-3	Fred Meier (Technische Universitat Berlin), Dieter Scherer, Jochen Richters. Determination of persistence effects in spatio-temporal patterns of upward long-wave radiation flux density from an urban courtyard by means of time-sequential thermography	11:00	B17-3	Jehn-Yih Juang (National Taiwan University). Exploring the impact of the urban heat island (UHI) on the regional micrometeorological pattern by linking land-use conversion and surface energy balance
11:15	A17-4	Benedicte Dousset (Hawaii Institute of Geophysics and Planetology), F. Gourmelon, K. Laaidi, A. Zeghnoun, E. Giraudet, P. Bretin, S. Vandentorren. Satellite monitoring of summertime heat waves in the Paris metropolitan area	11:15	B17-4	Tim Oke (University of British Columbia). The need to establish protocols in urban heat island work
11:30	A17-5	Tsuyoshi Honjo (Chiba University), Takakazu Karasawa, Yui Nagatani, Katsuhiko Kameno, Kiyoshi Umeki, Takaharu Kawase. Analysis of high-resolution surface temperature in the center of Tokyo	11:30	B17-5	Iain D Stewart (University of British Columbia), Tim Oke. Classifying urban climate field sites by "local climate zones": The case of Nagano, Japan
11:45	A17-6	János Unger (University of Szeged), Tamás Gál, János Rakonczai, László Mucsi, János Szatmári, Zalán Tobak, Boudewijn van Leeuwen, Károly Fiala. Air temperature versus surface temperature in urban environment	11:45	B17-6	Makoto Taniguchi (Research Institute for Humanity and Nature). Effects of global warming and heat island on subsurface environment in Asia
12:00			12:00	B17-7	Manju Mohan (Indian Institute of Technology), Yukihiro Kikegawa, B.R. Gurjar, Shweta Bhati, Anurag Kandya, Koichi Ogawa. Assessment of urban heat island intensities over Delhi
12:15		**Lunch Break**	12:15		**Lunch Break**
13:30-15:00		**A18. Remote sensing (2). Chair: Benedicte Dousset**	13:45-15:00		**B18. Urban heat island mitigation. Chair: Hirofumi Sugawara**
13:30	A18-1	José A. Sobrino (University of València). DESIREX 2008: Study of the urban heat island in Madrid (Spain)	13:30		
13:45	A18-2	Noora Eresmaa (Finnish Meteorological Institute), Minna Rantamäki, Ari Karppinen. Comparison of urban and rural boundary-layer height measurements by ceilometer	13:45	B18-1	Noriko Umemiya (Osaka City University), Masafumi Kawamoto, Yuta Sakurai, Koichi Taniguchi, Yumi Muranishi, Ryoji Okura. Moving observation of waterway cooling effects in Osaka
14:00	A18-3	Yasuhiro Murayama (National Institute of Information and Communications Technology), Hironori Iwai, Seiji Kawamura, Synya Sekizawa, Nobumitsu Tsunematsu, Shoken Ishii, Kohei Mizutani. Ground-based lidar/radar remote-sensing project for observing boundary layer over Japan including	14:00	B18-2	Zhuolun Chen (South China University of Technology), Moncef Krarti, Zhiqiang (John) Zhai, Qinglin Meng, Lihua Zhao. Sensitive analysis of landscaping effects on outdoor thermal environment in a residential community of hot-humid area in China
14:15	A18-4	Ippei Harada (Tokyo University of Information Sciences), Daisuke Kataoka, Taku Matsumoto, Kenji Kuriyama, Toshiaki Ichinose, Hiroaki Kuze. Measurement of atmospheric pollutants by means of differential optical absorption spectroscopy (DOAS) with a PC projector light source	14:15	B18-3	Tatsuya Maruyama (Fukuoka city), Taichi Tebakari. Proposal of mitigation technology for thermal environment in urban area using the water-retentive artificial turf system
14:30	A18-5	Hamed Tavoosi (Shahid Beheshti University), Roshanak Darvishzadeh, Alireza Shakiba, Babak Mirbagheri. Modeling light pollution in suburbs using remote sensing and GIS	14:30	B18-4	Yutaka Genchi (National Institute of Advanced Industrial Science and Technology), Tomohiko Ihara. Environmental impact assessment of urban air temperature increase based on endpoint-type life cycle impact (Part 1) - Its framework
14:45	A18-6	Jochen J. Richters (Technische Universität Berlin), Fred Meier, Dieter Scherer. Analysis of long-wave radiation from urban facets derived from time-sequential thermography (TST) and 3D city model	14:45	B18-5	Ikusei Misaka (Takenaka Corporation, Research & Development Institute), Ken-ichi Narita, Hitoshi Yokoyama. Evaluation of evaporation ability of the system for mitigating urban heat island
15:00		**Coffee Break / Poster Session 5**	15:00		**Coffee Break / Poster Session 5**

Poster Session 1 (Monday June 29th)		
Measurements of airflow (18)	P1-1	Miki Nakamura (Kyoto University), Kousaku Ono, Satoshi Sakai. Developing a wing-shaped captive balloon
	P1-2	Hiroyuki Yamada (Wakayama University), Mami Yokota. Research on the park breeze from the Daisen park, Osaka pref.
	P1-3	Jenny Lindén (University of Gothenburg). Nocturnal Cool Island and a thermal wind system - two features of the local climate in Ouagadougou, Burkina Faso
	P1-4	Margarita A. Kallistratova (Obukhov Institute of Atmospheric Physics), Rostislav D Kouznetsov, Vladislav P Yushkov. A long-term sodar study of mean wind velocity in the atmospheric boundary layer over Moscow
	P1-5	Kazuya Yamashita (Hokkaido University), Chusei Fujiwara, Mikio Nakanishi, Yasushi Fujiyoshi. Features of streaks in the urban area observed by a 3D-scanning Doppler Lidar
	P1-6	Shiho Onomura (Tokyo Institute of Technology), Hiroshi Takimoto, Manabu Kanda. Influence of a heated wall on urban canopy flow using PIV measurements
	P1-7	Murat I. Nakhayev (Hydrometeorological Research Center of Russian), Irina N. Kuznetsova, Mikhail N. Khaykin, Anna A. Artamonova, Vladislav P. Yushkov, Elena A. Lezina, Nikolai F. Mazurin. Comparison of vertical profiles of the temperature and wind speed in the rural locality and at the urban stations
	P1-8	Vladislav P. Yushkov (Moscow State University), R. D. Kouznetsov, M. A. Kallistratova. The spatial and temporal variability of the wind speed within the urban boundary layer
	P1-9	Homero Jorge Matos de Carvalho (IFET-PB). Methodology for analysis of interactions between urban form and climate
	P1-10	Janet Fraser Barlow (University of Reading), Anil Padhra, Omduth Coceal. Dependence of surface drag on density, layout and clustering of urban roughness elements
	P1-11	Hiroharu Tanaka (Tokyo Metropolitan University), Takehiro Mikami. An observational study of the sea breeze inhibition effect of the Shiodome skyscrapers
	P1-12	Mikhail A. Lokoshchenko (Lomonosov Moscow State University), Evgeniya A. Yavlyaeva. Sodar measurements of wind speed and wind direction above big city (Moscow)
	P1-13	Junji Nishina (Meijigakuin University), Takehiko Mikami. Diurnal variation of the local air-pressure system in the urban Tokyo
	P1-14	Kazuyuki Takahashi (Tokyo Metropolitan Research Institute for Environmental Protection / Tokyo Metropolitan University), Takehiko Mikami, Hideo Takahashi. Influence of the urban heat island phenomenon in Tokyo on land and sea breezes
	P1-15	Chusei Fujiwara (Hokkaido University), Kazuya Yamashita, Mikio Nakanishi, Yasushi Fujiyoshi. Features of dust devils in the urban area detected by a 3D-scanning Doppler lidar
	P1-16	Susumu Kurita (Meteorological Research Institute), Manabu Kanda. Structure of a boundary layer over a roughness area behind a cubic array in the middle distance obtained by wind-tunnel experiment
	P1-17	Manato Yamaguchi (Kyushu University), Jun Tanimoto, Aya Hagishima, Yoshiki Kikuchi, Sheikh Ahmad Zaki, Akashi Mochida. A wind tunnel study on drag coefficient for complex arrays of various types of roughness elements
	P1-18	Meichun Cao (Chinese Academy of Sciences), Zhaohui Lin, Yaping Shao, Aiguo Li. Wind profiles and roughness lengths over Beijing city

Building climate (6)

P1-19 Zhen Bu (the University of Tokyo), Shinsuke Kato, Takeo Takahashi, Hong Huang. Wind tunnel experimental study of airflow and pollution dispersion in areaway space

P1-20 Masahito Takata (Tokyo Institute of Technology), Akira Hoyano, Akinobu Murakami. Numerical analysis on the thermal environment of the traditional residential areas in "Edo" (early modern Tokyo) - Methodology of making 3D CAD models and material databases for the thermal environment simulation -

P1-21 Takashi Asawa (Tokyo Institute of Technology), Shinji Yamamura, Akira Hoyano. Prediction of sensible heat flux from buildings and urban spaces using detailed geometry model of a substantial urban area -Introduction of a prediction model of anthropogenic heat into an urban heat balance simulation model-

P1-22 Shingo Yakabe (Tokyo Institute of Technology), Akira Hoyano, Jiang He, Kazuaki Nakaohkubo. Development of a simulation method for predicting and evaluating thermal comfort in living spaces of membrane structures

P1-23 Seyedeh Faezeh Etemad Sheykholeslami (Bu-Ali Sina University), Mansoreh Tahbaz. Climatic analysis of neighborhoods in a traditional city (case study: Hamedan)

P1-24 Masaru Abuku (Katholieke Universiteit Leuven), Hans Janssen, Staf Roels. Heat and moisture stress of wind-driven rain on building facades in various humid climates

Impervious surfaces, water and green spaces (19)

P1-25 Luciano Massetti (National Research Council), Martina Petralli, Simone Orlandini. The influence of solar radiation exposure on air temperature difference in a parking lot: a case study in Florence, Italy.

P1-26 Benjamin Steiling (Ruhr-University of Bochum), Andreas Pflitsch, Wilfried Endlicher, Meike Schwabe. Biometeorological situations in different subway systems

P1-27 Tanja Likso (Meteorological and Hydrological Service). A discussion of statistical method used to estimate the air temperature at 5 cm above ground in urban area

P1-28 Takahito Ueno (Sojo University), Kazunori Tamaoki. Thermal characteristics of urban land cover by indoor lamp-irradiation experiment

P1-29 Andreas Pflitsch (Ruhr-University), Wilhelm Kuttler, Julia Ringeis. Tracer gas experiments for the study of the dispersion of hazardous airborne substances in various subway systems

P1-30 Rihito Sato (Tokyo Institute of Technology), Akira Hoyano, Takashi Asawa. Modeling method of substantial urban area using 3D-CAD and its application to thermal environment simulation in rural cities

P1-31 Hirofumi Sugawara (National Defense Academy), Ken-ichi Narita, Min Sik Kim. Cooling effect by urban river

P1-32 Martina Petralli (University of Florence), Luciano Massetti, Simone Orlandini. Air temperature distribution in an urban park: differences between open-field and below a canopy

P1-33 Yoshifumi Fujimori (Ehime University), Tatsuya Okada, Ryo Moriwaki. Impact of land-use change on the groundwater and evapotranspiration in Matsuyama

P1-34 Tsuyoshi Kinouchi (Tokyo Institute of Technology), Yangwen Jia. Urban stream temperature simulation under strong anthropogenic influences

P1-35 Maiko Ishikawa (Tokyo Institute of Technology), Akira Hoyano, Kazuaki Nakaohkubo, Eiko Kumakura. Planning and evaluation of urban green space for thermally comfortable environment in the station square - Numerical analysis using 3D CAD-based thermal environment simulator -

P1-36 Leonardo Marques Monteiro (University of Sao Paulo), Marcia Peinado Alucci. The impact of vegetation on outdoor thermal comfort in urban spaces

P1-37 Derald A. Harp (Texas A&M University - Commerce), Chelsea Suttle. Relationship between air temperature, relative humidity, wind speed and evapotranspiration in green roof plants in the southern United States.

P1-38 Victor Luis Barradas (Universidad Nacional Autonoma de Mexico), Giuseppe Pasquetti-Hernandez. Urban microenvironmental variables effect on stomatal conductance of two urban tree species in Mexico City

P1-39 Francisco Mendonca (Universidade Federal do Paraná). Urban heat and urban cool islands: Influences of vegetation and soil surface in some cities, southern Brazil

P1-40 Steve Kardinal Jusuf (National University of Singapore), Wong Nyuk Hien. Study on air temperature distribution and its correlation with sky view factor in a green Singapore estate

P1-41 Ryoko Oda (Tokyo Institute of Technology), Manabu Kanda. Cooling effect of sea surface temperature of Tokyo Bay on urban air temperature

P1-42 **Masayuki Oguro (Taisei Corporation), Hinako Motohashi. Measurement and numerical simulation of outdoor thermal environment for a realistic urban area**

P1-43 Limor Shashua-Bar (Ben Gurion University of the Negev), Evyatar Erell, David Pearlmutter. Water use considerations and cooling effects of urban landscape strategies in a hot dry region

Poster Session 2 (Tuesday June 30th)

Exchange processes (12)

P2-1 Erik Velasco (National University of Singapore), Shelley Pressley, Rasa Grivicke, Eugene Allwine, Brian Lamb. Energy balance in urban Mexico City: Observation and parameterization during the MILAGRO-2006 field campaign

P2-2 Qinglin Meng (South China University of Technology), Yu Zhang. Experimental method study of climatic evaporation of porous material in wind tunnel

P2-3 Susanne Burri (University of Basel), Corinne Frey, Eberhard Parlow, Roland Vogt. CO2 fluxes and concentrations over an urban surface in Cairo/Egypt

P2-4 Andres Gartmann (University of Basel), Mathias Müller, Roland Vogt. Comparison of CFD results with experimental data within a street canyon: The influence of average time

P2-5 Byung Hyuk Kwon (Pukyong National University), Jun Sang Park, Dong Su Kim, Kwang Ho Kim. Thermal environment in a street canyon after restoration of an inner-city stream

P2-6 Shinichi Kinoshita (Osaka Prefecture University), Atsumasa Yoshida, Kohei Nakamura. Field measurement of surface heat budget on land cover elements in urban area

P2-7 Stephan Weber (University of Duisburg-Essen), Klaus Kordowski. Turbulence characteristics and fluxes of heat and momentum: Inter-site comparison of two urban sites

P2-8 Yuudai Tanaka (Kyushu University), Aya Hagishima, Jun Tanimoto, Ken-ichi Narita, Naoki Ikegaya. Investigation on transfer coefficient for various geometric types of urban-like roughness based on the salinity method

P2-9 Thijs Defraeye (Katholieke Universiteit Leuven), Bert Blocken, Jan Carmeliet. CFD analysis of convective heat transfer coefficients on the exterior surfaces of a cubic building

P2-10 Andreas Christen (University of British Columbia), Nicholas Coops, Ben Crawford, Kate Liss, Tim Oke, Rory Tooke. The role of soils and lawns in urban-atmosphere exchange of carbon-dioxide

P2-11 Ryo Moriwaki (Ehime University), Yoshifumi Fujimori, Shingo Aoki. Comparison of turbulence statsitics above outdoor urban scale model and rice paddy

P2-12 Atsushi Inagaki (Tokyo Institute of Technology), Ayako Maruyama, Manabu Kanda. Spatial and temporal scales of coherent turbulence over outdoor reduced urban scale model

CFD of airflow (14)

P2-13 James O.P. Cheung (The University of Hong Kong), P.W. Chan, Dennis Y.C. Leung. Large-eddy simulation of the wind flow across a terminal building on the airfield

P2-14 Marcus Oliver Letzel (Leibniz Universität Hannover), Yvonne Breitenbach, Siegfried Raasch. LES studies on the turbulence structure in the urban roughness sublayer

P2-15 Matteo Carpentieri (University of Surrey), Alan G. Robins.Neighbourhood scale flow and dispersion modelling

P2-16 Jae-Won Choi (Pukyong National University), Jae-Jin Kim, Jung-Hun Woo. A numerical study on the effects of skyscrapers on flow and dispersion in a metropolis

P2-17 Ju-Hyun Lee (Pukyong National University), Jae-Jin Kim. A numerical study on the effects of meteorological and reclaiming conditions on reduction of suspended particles

P2-18 Young-Su Lee (Pukyong National University), Jae-Jin Kim. A CFD modeling on the effect of building density on urban flow

P2-19 Jose Luis Santiago (CIEMAT), Anne Dejoan, Alberto Martilli, Fernando Martin, Alfredo Pinelli. LES and RANS simulations of the MUST experiment. Study of incident wind direction effects on the flow and plume dispersion

P2-20 Adil Rasheed (EPFL), Darren Robinson, Alain Clappier. Development of a new urban canopy model

P2-21 Pei Shui (The University of Hong Kong), Chun-Ho Liu, Yuguo Li. CFD analysis of pollutant removal mechanism in urban street canyons

P2-22 W.C. Cheng (The University of Hong Kong), Chun-Ho Liu, Dennis Y.C. Leung. Periodic flow & pollutant removal of street canyon in wind-buoyancy-driven condition using the URANS model

P2-23 Miklós Balogh (Budapest University of Technology and Economics), Gergely Kristóf. Multiscale modeling approach for urban boundary layer flows

P2-24 Daniele Gomes Ferreira (Federal University of Minas Gerais), Eleonora Sad Assis, Clara M.O. Ferreira. Urban development and wind changes: a case study of Belo Horizonte city, Brazil

P2-25 Takeshi Sugimura (Earth Simulator Center, JAMSTEC), Keiko Takahashi, Makoto Iida. Numerical wind analysis on complex topography using multiscale simulation model.

P2-26 Rostislav D. Kouznetsov (Obukhov Institute of Atmospheric Physics), Margarita A. Kallistratova, Vladislav P. Yushkov, Irina N. Kuznetsova. Interconnection between temperature and wind speed profiles for the urban and rural ABL

Design and planning (16)

P2-27 Edward Y Y Ng (Chinese University of Hong Kong). Air ventilation assessment for high density city - An experience from Hong Kong

P2-28 Raymond M. H. Yau (Ove Arup and Partners Hong Kong Ltd), Wilson Jiang, Sui-Hang Yan, Trevor S. K. Ng, Rumin Yin, Edward Y Y Ng. External wind modeling for dense and hi-rise cities

P2-29 Ruey-Lung Hwang (National United University), Tzu-Ping Lin, Andreas Matzarakis. Outdoor thermal comfort in university campus in hot-humid regions

P2-30 Pragya Roongta (The Grasgow School of Art), Masa Noguchi. A feasibility study for greening the Glasgow School of Art's Bourdon Building underused rooftop towards the enhancement of urban vegetation in Glasgow

P2-31 Hideki Takebayashi (Kobe University), Masakazu Moriyama. The evaluation of the introduction effect of urban heat island measure technology in the central business district of Osaka city

P2-32 Andreas Matzarakis (University of Freiburg). Additional features of the RayMan model

P2-33 Juergen Baumueller (University of Stuttgart), Ulrich Hoffmann, Uwe Stuckenbrock. Urban framework plan "hillsides of Stuttgart"

	P2-34	Leonardo Marques Monteiro (University of Sao Paulo), Joana Goncalves, Marcia Peinado Alucci. Outdoor thermal comfort assessment and the revitalization of a dilapidated neighbourhood, in Rio de Janeiro, Brazil
	P2-35	Jing Ban (Xi'an Jiaotong University), Fan Zhang, Yiwei Liu, Lina Xiao, Xiaoying Guo, Tao Zhang, Bin Liu, Xiaozhuo Wang, Qian Lu, Tingke Zhao, Xin Jin, Edward NG. A pilot study of urban climatic mapping of the city of Xi'an, China
	P2-36	Kyunghun Park (Changwon National University), Bonggeun Song, Kyungtae Kim, Woosung Lee, SungGwan Jung, Juhan You. Analysis and evaluation of cold and fresh air generation areas for mitigating urban heat island in Changwon, South Korea
	P2-37	Gerald Mills (Planning & Environmental Policy, UCD), Tine Ningal. An urban environmental database suitable for planning purposes: A case study for Dublin
	P2-38	Jacqueline A. Vilela (UFMG University), Eleonora S. Assis. Climate variables in urban developing areas: assessment procedure applied to the district of Belvedere III, Belo Horizonte city, Brazil
	P2-39	Bernadett Balázs (Singapore-MIT Alliance for Research and Technology), Terianne Hall, Matthias Roth, Leslie K. Norford. Microclimate in a high-rise residential development in Singapore
	P2-40	Hironori Watanabe (Tohoku Institute of Technology), Yoshiki Jyu-nimura. Field measurement of cold air drainage at a planted road on the hillside residential district in summer night
	P2-41	Chao Ren (The Chinese University of Hong Kong), Edward NG, Lutz Katzschner. Review of worldwide urban climatic map study and its application in planning
	P2-42	Isao Iizawa (Kyoto Municipal Horikawa High School), Kazuhiro Umetani, Aya Ito, Satoshi Sakai. Observation of formation process of heat island circulation
Forecasts for the urban environment (6)	P2-43	Leszek Marek Osrodka (Institute of Meteorology and Water Management, Branch of Krakow, Poland), Ewa Agnieszka Krajny, Marek Jan Wojtylak. Application of numerical weather prediction to the air quality forecast based on the fuzzy sets
	P2-44	James A. Voogt (University of Western Ontario), Timothy. R. Oke, Onil Bergeron, Sylvie Leroyer, Ben Crawford, Eric Christensen, Beth Nanni, T. Rory Tooke, Derek van der Kamp, Frederic Chagnon. The environmental prediction in Canadian cities (EPiCC) network
	P2-45	Anatoly M. Zvyagintsev (Central Aerological Observatory), O. A. Tarasova, Irina N. Kuznetsova, Elena A. Lezina, Yaroslav O. Romaniuk, Mikhail G. Sosonkin. Surface ozone in Russian and Ukrainian big cities and its forecasting
	P2-46	Khalid Yakub Muwembe (Uganda Meteorological Department), Lukiya Tazalika, Deus Bamanya. A survey on the devastating impacts of Sept-Dec 2006 rains and subsequent floods on the selected suburbs of Kampala city
	P2-47	Rattapon Onchang (Silpakorn University), Thummarat Thummadetsak, Praderm Sudsanguan, Somchai Siangsanorh, Dietmar Oettl, Ittipol Paw-armart. Lagrange dispersion modelling of nartural gas for vehicle emissions from an urban area in Bangkok
	P2-48	Simone Queiroz da Silveira (The Federal University of Minas Gerais), Eleonora Sad de Assis. Calibration of the Thermal Comfort Index Physiological Equivalent Temperature (PET) for open spaces in the city of Belo Horizonte - Brazil

Poster Session 3 (Wednesday July 1st)

Impacts of climate change on cities (6)	P3-1	Teodoro Georgiadis (CNR, Institute of Biometeorology), Federica Rossi, Silvia Rossi. Urban green, urban architecture, and urban climate: Vegetations as a tool for mitigating extremes in bioclimatic trends
	P3-2	Daniel Comarazamy (Santa Clara University), Jorge Gonzalez. Impact of land cover land use changes on a sea breeze/trade wind dominated climate in the tropics
	P3-3	Kristina Trusilova (Max-Planck Institute for Biogeochemistry), Galina Churkina. The response of the terrestrial biosphere to urbanization: land cover conversion, climate, and urban pollution.

P3-4 Pavel I Konstantinov (Lomonossov Moscow State University), Alexander V Kislov. Application of urban microclimatic model for simulation of temperature regime of Moscow region.

P3-5 Andreas Matzarakis (University of Freiburg), Christina Endler. Climate change and urban bioclimate: Adaptation possibilities

P3-6 Sebastian Huttner (Johannes Gutenberg-Universität), Michael Bruse, Paul Dostal, Antje Katzschner. Strategies for mitigating thermal heat stress in central European cities: the project KLIMES

Models at all scales (27)

P3-7 Sebastian Huttner (Johannes Gutenberg-Universität of Mainz), Michael Bruse. Numerical modeling of the urban climate - A preview on ENVI-met 4.0

P3-8 Toshinori Aoyagi (Meteorological Research Institute), Naoko Seino. The development of a single layer urban canopy scheme for the Japan Meteorological Agency nonhydrostatic mesoscale model

P3-9 Kazuaki Nakaohkubo (Tokyo Institute of technology), Akira Hoyano. Radiant heat transfer model on 3D-CAD based thermal environment simulator and its applications to the substantial urban area : Influence of spatial geometry of urban block on effective albedo and sensible heat flux

P3-10 Akiyoshi Ito (Japan Petroleum Energy Center), Yasuo Yoshikawa. An application of a Roadside Air Quality Simulation Model (RsAQSM) to roadside nitrogen dioxide (NO2) concentration

P3-11 Ekaterina Batchvarova (National Institute of Meteorology and Hydrology), Enrico Pisoni, Giovanna Finzi. Vertical structure of the atmospheric boundary-layer - The Regional Atmospheric Modeling System RAMS and the Sofia Experiment 2003

P3-12 Satoru Iizuka (Nagoya University), Kazuya Kinbara, Hiroyuki Kusaka, Masayuki Hara, Yuko Akimoto. An attempt to project a future thermal environment in the Nagoya metropolitan area combined with pseudo global warming data

P3-13 Nadine d'Argent (Monash University), Jason Beringer, Nigel Tapper. A climatic and bioclimatic assessment of the compact city: A case study of "Melbourne 2030" - Australia

P3-14 Shweta Bhati (Indian Institute of Technology), Manju Mohan, Archana Rao. Application of air dispersion modelling for exposure assessment from particulate matter pollution in mega city Delhi

P3-15 Fumichika Uno (Tsukuba university), Yousay Hayasi, Hitosi Yokoyama. Application of solar radiation estimation model by use of shading effect to urban area

P3-16 Thomas Loridan (King's College London), Sue Grimmond, Susanne Grossman-Clarke, Fei Chen, Mukul Tewari, Kevin Manning, Alberto Martilli. The Noah / Urban Canopy Model in WRF V3.1: Input parameters and sensitivity analysis using MOSCEM optimization algorithm

P3-17 Nanako Kitao (Kobe University), Masakazu Moriyama, Shunsuke Nakajima, Takahiro Tanaka, Hideki Takebayashi. The characteristics of urban heat island based on the comparison of temperature and wind field between present land cover and potential natural land cover

P3-18 Maria M. Smirnova (Lomonosov's Moscow State University), Vladislav P. Yushkov, Konstantin G. Rubinstein, Rostislav D. Kuznetsov. Errors in regional model simulation of temperature and wind profiles in rural and urban atmospheric boundary layer

P3-19 Sang-Hyun Lee (NOAA ESRL), Stuart A McKeen, Wayne M Angevine, Gregory J Frost, Si-Wan Kim, Michael Trainer. Impact of an urban land surface parameterization on the transport and dispersion of gaseous air pollutants

P3-20 Yasushi Watarai (Rissho University), Kiyotaka Nakagawa, Yoshitaka Fukuoka. Numerical experiment of the intense heat over the central Kanto Plain in August 2007, using WRF model with simple urban model

P3-21 Takaaki Kono (Building Research Institute), Yasunobu Ashie, Tetsuro Tamura. Derivation of spatially averaged momentum equations of urban canopy model using the concept of the immersed boundary method

P3-22 Chuan-Yao Lin (Academia Sinica, Taipei), Fei Chen, Wan-Chin Chen, Shaw-Chen Liu. Urban heat island effect and its impact on boundary layer development and precipitation over northern Taiwan

P3-23 Heather Thompson (University of Birmingham), Xiaoming Cai, David Grawe, Jennifer Salmond. Modelling the impact of urbanisation on the heat island of the Greater London Area

P3-24 Qinglin Meng (South China University of Technology), Lei Zhang. Near ground air temperature calculation model based on heat transfer of vertical turbulent and horizontal air flow

P3-25 Hiroyuki Kusaka (University of Tsukuba), Fei Chen, Mukul Tewari, Michael Duda, Jimy Dudhia, Yukako Miya, Yuko Akimoto. Performance of the WRF model as a high resolution regional climate model: Model intercomparison study

P3-26 Weimei Jiang (Nanjing University), Yongwei Wang, Ning Zhang. Research on urban land-surface process and boundary layer

P3-27 Sylvie Leroyer (McGill University), Jocelyn Mailhot, Stephane Belair, Aude Lemonsu, Ian B. Strachan. Influence of the thermal roughness length parameterization in the TEB scheme on the simulation of the surface energy budget during the thawing period of the Montreal Urban Snow Experiment (2006)

P3-28 Toru Kawai (Ehime University), Manabu Kanda. Improvements and evaluations of a Simple Urban Energy Balance Model for Mesoscale Simulation (SUMM) by using selected data obtained from one-year flux observations in two cities

P3-29 Joon Ho Lee (Laboratoire de Mecanique des fluides), Patrice G Mestayer, Aurelien Henon. 3D simulation of thermal signatures in the urban canopy layer by using the thermo-radiative model SOLENE

P3-30 Steve Kardinal Jusuf (National University of Singapore), Wong Nyuk Hien. Development of empirical models for an estate level air temperature prediction in Singapore

P3-31 Yukitaka Ohashi (Okayama University of Science), Atsuko Sano, Yukihiro Kikegawa. Inland air-heating induced by a sea-breeze penetration

P3-32 Yasunobu Ashie (Building Research Institute), Kohin Hirano, Takaaki Kono. Effects of sea breeze on thermal environment as a measure against Tokyo's urban heat island

P3-33 Bereket Lebassi (Santa Clara University), J. Gonzalez, R. Bornstein. Modeling differences between 1970 and 2005 summer daytime temperatures in coastal California

Low carbon cities (3)

P3-34 Bereket Lebassi (Santa Clara University), Jorge Gonzalez, Robert Bornstein, R. Van Buskirk. Regional energy-use impacts in the coastal California environment from a changing climate

P3-35 Anne Khai-Lin Quah (National University of Singapore), Matthias Roth. Spatial and temporal distribution of anthropogenic heat emissions in Singapore

P3-36 Reuben Mingguang Li (National University of Singapore), Matthias Roth. Spatial variation of the canopy-level urban heat island in Singapore

Urban impacts on precipitation (12)

P3-37 Mace L Bentley (Northern Illinois University), Walker S Ashley, Tony Stallins. Radar delineation of urban-enhanced thunderstorms for cities in the southeastern U.S.

P3-38 Hideo Takahashi (Tokyo Metropolitan University), Yasuko Nakamura, Hiroto Suzuki. Distribution of summertime intense rainfall frequency and the surface roughness in the Tokyo metropolitan area

P3-39 Ryo Shimoju (Tokyo Institute of Technology), Makoto Nakayoshi, Manabu Kanda. Numerical simulation of sea breeze on high rise buildings to reproduce the localized heavy rain in Tokyo

P3-40 Yuzuru Yamazoe (Nihon University). The characteristic of diurnal variation of the amount of vapor in hot nights in Tokyo

P3-41 Yizhou Zhang (Beijing Normal University). Study of urbanization impacts on regional precipitation in the Beijing region

P3-42 Tomohiko Inamura (Tokyo Metropolitan University), Takeki Izumi, Hiroshi Matsuyama. Effects of large cities on wind systems over the Kanto plain when heavy rainfall occurred in Tokyo

P3-43 Toru Yamanaka (KAJIMA Corporation), Ryozo Ooka. Analysis of urban effect on local heavy rainfall in Tokyo using mesoscale model

P3-44 Naoko Seino (Meteorological Research Institute), Toshinori Aoyagi. Urban influences on precipitation in the Tokyo area: Numerical simulation of a heavy rainfall event

P3-45 Jun Matsumoto (Tokyo Metropolitan University), Peiming Wu, Hideyuki Kamimera, Jun-Ichi Hamada, Shuichi Mori, Manabu D. Yamanaka, Namiko Sakurai, Fadli Syamsudin, Reni Sulistyowati, Ardhi Adhary Arbain, Yusuf S. Djajadihardja. Torrential rains in the Indonesian capital city of Jakarta

P3-46 Suzana P. Alcinova Monevska (Republic Hydrometeorological Institute). Some characteristics of Skopje urban climate

P3-47 Yair Goldreich (Bar-Ilan University). Updating the urban topoclimatology - A review

P3-48 Yasunobu Aoki (Kaihatsu Giken Co.), Yoshihide Tominaga, Toru Murata. Numerical study on relationship between residential building arrangement and snow distribution

Poster Session 4 (Thursday July 2nd)

Air pollution meteorology and modeling (12)

P4-1 Ani Melkonyan (University of Duisburg-Essen),Wilhelm Kuttler. Characteristics of temporal cycles of air constituents in North-Rhine Westphalia, Germany

P4-2 Minori Sakamoto (Osaka University), Fumihisa Seto, Akira Kondo, Shrestha Kundan lal, Akikazu Kaga, Yoshio Inoue. The spatial distribution of ozone concentrations in the Kansai region, Japan obtained from MM5/CMAQ simulation

P4-3 Agnieszka Podstawczyńska (University of Łódź), Krzysztof Kozak. Outdoor radon (222RN) concentration in urban and rural area (central Poland) in relation to meteorological parameters

P4-4 Sayuri Okubo (Tokyo Metropolitan University), Hideo Takahashi. Long-term and seasonal trend of SPM concentration and its spatial distribution in the Kanto region, Japan

P4-5 Stephan Weber (University of Duisburg-Essen). Variation of particle number concentrations and noise on the local urban scale

P4-6 Dennis Y.C. Leung (The University of Hong Kong), Peterson Wong, C.H. Liu, L.L.P. Vrijmoed, B.K.H.Cheung. A study on the BVOC emissions in Hong Kong

P4-7 Kazuya Inoue (National Institute of Advanced Industrial Science and Technology), Haruyuki Higashino. Effects of anthropogenic heat release on regional climate and pollutants distribution estimated by the meteorology-chemistry couppled atmospheric model

P4-8 Pasquale Avino (DIPIA-ISPESL). The atmospheric pollution in urban Italian cities

P4-9 Chen Liang (The Chinese University of Hong Kong), Edward Ng, An Xipo. Air path detection in urban environment and its implications on morphological analysis and ventilation assessment: a new way to solve and old problem?

P4-10 Sascha M. Henninger (Technical University of Kaiserslautern). Urban climate and air pollution in Kigali, Rwanda

P4-11 Cheng Li (Tsinghua University), Ryozo Ooka, Hong Huang. The effect of automobiles on air quality in Beijing: before and after the Olympic game

P4-12 Leena Järvi (University of Helsinki), Risto Hillamo, Sanna Saarikoski, Tareq Hussein, Üllar Rannik, S. Carbone,Timo Vesala, Markku Kulmala. Online-measurements of physics and chemistry of urban aerosols

Remote sensing (16)

P4-13 Noora Eresmaa (Finnish Meteorological Institute), Jari Härkönen, Ari Karppinen. Boundary-layer height estimated by ceilometer

P4-14 Rafiq Hamdi (Royal Meteorological Institute of Belgium), Alex Deckmyn, Piet Termonia. Modeling the local urbanization effects on the temperature series of Uccle (Brussels, Belgium): a sensitivity study using the Town Energy Balance (TEB) scheme

P4-15 Kenneth Porter (University of Western Ontario), James A. Voogt. Multiscale assessment of urban emissivity

P4-16 Hiroyuki Miyazaki (University of Tokyo), Koki Iwao, Ryosuke Shibasaki. Developing global urban extent map of high resolution with ASTER satellite images

P4-17 Chen-Yi Sun (National Chin-Yi University of Technology), Hsien-Te Lin. The relation between heat island and land-cover in a subtropical city, Tainan, Taiwan.

P4-18 Woo Sung Lee (KuyngPook National University), Kyung Tae Kim, Kyung Hun Park, Sung Gwan Jung, Ju Han You, Jeong Hak Oh, Young Chul Yoon. Effects of spatial characteristics on the urban thermal environment in Changwon, Korea

P4-19 Hiroshi Miyazaki (Kansai University). Application of the directed principal component analysis method to process a remotely sensed thermal inertia image

P4-20 Tamon Yoshida (Tokyo Institute of Technology). Analysis of seasonal differences of surface temperature distribution and land cover in local cities using airborne Multi-temporal thermal images

P4-21 Eisuke Kaga (Tokyo Institute of Technology), Akira Hoyano, Akinobu Murakami. Analysis and visualization of climate near the ground around the urbanized area in Tonami plain using airborne Multi Spectral Scanner Images

P4-22 Yasuaki Kambe (the University of Tokyo), Yotsumi Yoshii, Kenshi Takahashi, Kenichi Tonokura. Continuous monitoring of urban air quality with a pulsed DOAS technique

P4-23 Hyun Jung Oh (Korea Telecom). A method for monitoring air pollution using mobile-networking base stations

P4-24 Haruo Ando (The Tokyo Metropolitan Research Institute for Environmental Protection), Wataru Morishima, Hitoshi Yokoyama. Effects of urban geometry on urban heat islands in Tokyo

P4-25 Hironori Iwai (National Institute of Information and Communications Technology), Taichiro Hashiguchi, Shoken Ishii, Kohei Mizutani, Yasuhiro Murayama. A strong updraft at a sea-breeze front over the Tokyo metropolitan area observed by Doppler lidar

P4-26 Jüergen Junk (Centre de Recherche Public), Uwe Feister, Klaus Göergen, Eugene Rozanov. Advantages of modelled ozone data for the reconstruction and analysis of long-term erythemal UV radiation time series

P4-27 Uwe Feister (German Meteorological Service), Gudrun Laschewski. Solar health-effective UV radiation - Short-term forecasting and measurements

P4-28 Masanori Onishi (National Museum of Emerging Science and Innovation), Miki Nakamura, Satoshi Sakai. Radiative cooling estimated by cloudiness, temperature, and dewpoint temperature

Human biometeorology (16)

P4-29 Paul Dostal(University of Mainz), Antje Katzschner, Michael Bruse, Sebastian Huttner. Quantifying the human thermal-heat stress in central Eurppean cities with BOTworld and on site-interviews as analysing tool to estimate the thermal sensation of pedestrians.

P4-30 Alessandra R. Prata Shimomura (University of Sao Paulo), Anesia Barros Frota, Leonardo Marques Monteiro. Comparative evaluation of thermal comfort indices: case study in the cost city of Santos, Brazil

P4-31 Makoto Nakayoshi (Tokyo Institute of Technology), Manabu Kanda. Lagrangian human bio-meteorology

P4-32 Ágnes Gulyás(University of Szeged), Andreas Matzarakis, János Unger. Analysis of the thermal bioclimatic conditions of a Southern Hungarian city and its surrounding

P4-33 Francisco Mendonça(University Federal do Paraná), Inês Moresco Danni-Oliveira, Sonia Maria Bakonyi. Air pollution and children health in Curitiba / Brazil

P4-34 Craig E. Famham (Osaka City University), Masaki Nakao, Masatoshi Nishioka, Minako Nabeshima. Quantification of the effect of cooling mists on individual thermal comfort

P4-35 Yasuhiro Shimazaki (Osaka Prefecture University), Atsumasa Yoshida, Ryota Suzuki, Shinichi Kinoshita. Predictive method for human thermal comfort in urban space

P4-36 H Luo (Tottori University), Y Kurozawa, Y Li, H Wang. Climate change, humidity, and human health in Japanese coastal city of Sanin

P4-37 Gamaliel Velarde Romero (Universidad Nacional de San Agustin de Arequipa). Simulation of the influence of vegetation in urban microclimate of height and thermal comfort in the city of Arequipa - Peru

P4-38 Keiko Masumoto (Osaka City Institute of Public Health and Environmental Sciences). Urban heat island in Osaka city distribution of air temperature and wet bulb globe temperature

P4-39 Qiong Li (South China University of Technology), Qinglin Meng, Lihua Zhao, Xiaoshan Yang, Lifan Shu. Experimental study on outdoor thermal environment of campus building clusters in tropical climate

P4-40 Anna Stoyanova Tzenkova-Bratoeva (National Institute of Meteorology and Hydrology, Sofia), Julia Ivancheva, Plamen Videnov, Ilian Gospodinov. Bioclimate conditions during the heat waves in Bulcaria in the summer season 2007

P4-41 Tomohiko Ihara (National Institute for Advanced Industrial Science and Technology), Yutaka Genchi. Environmental impact assessment of urban air temperature increase based on endpoint-type life cycle impact (Part 2) - Quantification of environmental impact in Tokyo

P4-42 Manucheher Farajzadeh Asl (Tarbiat Modares University), Mohammad Darand. Climate and human mortality in Tehran, Iran

P4-43 Bohloul Alijani (Tarbiat Moallem University). Analyzing and predicting the climatic hazards of Tehran area

P4-44 Leonardo Marques Monteiro (University of Sao Paulo), Marcia Peinado Alucci. Outdoor thermal comfort: comparative study of a sidewalk, a square and a park in a downtown area

Poster Session 5 (Friday July 3rd)

Heat island (31)

P5-1 Grégoire Pigeon, (CNRM-GAME, Météo France-CNRS), Aude Lemonsu, Valéry Masson. Annual spatio-temporal variability of Toulouse urban heat island

P5-2 Monica Ballinas-Oseguera (Universidad Nacional Autonoma de Mexico), Victor Luis Barradas. The urban heat island and bioclimate comfort in a high altitude tropical city in Mexico

P5-3 Hideo Takahashi (Tokyo Metroplitan University), Yasuko Nakamura. Spatial structure of sky view factor calculated by using digital surface model in the Tokyo Metropolitan area

P5-4 Marcin Rzepa (University of Łódź). The map of sky view factor in the center of Łódź

P5-5 Atsushi Miyashita (Seikei Meteorological Observatory). Japanese school observatory and its contribution to research on urban climate

P5-6 Tetsu Kubota (Universiti Teknologi Malaysia), Dilshan Remaz Ossen. Analysis of spatial and temporal characteristics of urban heat island in the tropics: A case study of Johor Bahru city, Malaysia

P5-7 Yoshinori Shigeta (Graduate school of Okayama University). Urban cool island in daytime - Analysis by using thermal image and air temperature measurements -

P5-8 Naoki Takagi (Shinshu University), Kouhei Nashimoto, Tatsuya Suga, Yuutarou Namoto. Relationship about land cover and surface temperature, surface layer temperature in provincial city

P5-9 Ildiko Dobi Wantuch (Hungarian Meteorological Service), Janos Mika, Bela Andras Olah. Cold and hot events in urban environment

P5-10 Monsingh David Devadas (Anna University), Lilly Rose Amirtham. Urban factors and the intensity of heat island in the city of Chennai

P5-11 Abdulaziz Mohammed Al-Alswilem (Imam Mohammad Bin Saud University). A study of the urban heat island of Riyadh, Saudi Arabia

P5-12 Ikumi Akasaka (Tokyo Metropolitan Research Institute for Environmental Protection), Haruo Ando, Hitoshi Yokoyama. Regional characteristics on diurnal change of temperature in the Tokyo metropolitan area

P5-13 Kyoo-seock Lee (Sungkyunkwan University), Wencheng Jin. Urban heat island effects by skyscrapers

P5-14 Björn Holmer (University of Gothenburg), Sofia Thorsson. Intra-urban nocturnal cooling - A comparison of high-latitude Göteborg, Sweden and tropical Ouagadougo, Burkina Faso

P5-15 Homero Jorge Matos de Carvalho (IFET-PB), Maglane Pontes da Silva, Julio Goncalves da Silva. Repercussions resulted from the relation between the shadowing and the orientation of the city grid on the air temperature

P5-16 Mario Esteban Cunsulo (Universidad Nacional de San Juan), Alberto Papparelli, Alejandra Kurban, Eduardo Montilla, Eliana Rios. Measurement of the urban heat island and humidity depression in a city of arid zone

P5-17 Xipo An (The Chinese University of Hong Kong), Edward Ng. A pilot study of the air temperature spatial pattern in Hong Kong using the traverse measurement

P5-18 Ryo Moriwaki (Ehime University), Manabu Kanda, Hiroshi Senoo, Aya Haghisima, Tsuyoshi Kinouchi. Anthropogenic water vapor and heat emissions in Tokyo

P5-19 Marina Mileta (Meteorological and Hydrological Service). Trends of the annual and seasonal numbers of the days with unusual temperatures at the Zagreb-Grič Observatory (Croatia)

P5-20 Yohei Shiraki (Rissho University,), Makoto Taniguchi, Ko-ichi Kitaoka. Effect of the heat island on subsurface temperature

P5-21 Fumiaki Fujibe (Meteorological Research Institute). Day-of-the-week variations and their long-term trends of urban temperature in Japan

P5-22 Sachiho Adachi (University of Tsukuba), Fujio Kimura. Numerical studies on temperature change and urbanization in recent 30 years in Kanto Plain

P5-23 Yukiko Hisada (Kyushu University), Nobuhiro Matsunaga. Structures of urban heat island in the nighttime of summer season

P5-24 Hirokai Yamato (Tokyo Metropolitan University), Hideo Takahashi, Takehiko Mikami. New urban heat island monitoring system in Tokyo metropolis

P5-25 Akinobu Miyakoshi (Geological Survey of Japan, AIST), Takeshi Hayashi, Masafumi Kawai, Shinichi Kawashima, Shoichi Hachinohe. Subsurface thermal environment change due to artificial effects in the Tokyo Metropolitan Area, Japan

P5-26 Joon Ho Lee (Ecole Centrale de Nantes, Laboratoire de Mecanique des Fluides), Maria Shahgedanova, Kevin H White. The role of urban parameters in the development of urban heat island: analysis and statistical modelling

P5-27 SangHun Baek (Kei-myung University), DaeWuk Kim, JiWon Ryu, JaeGyu Cha, EungHo Jung. A study on the analysis of the urban microclimate changes by the urban growth

P5-28 Qinglin Meng (South China University of Technology), Lihua Zhao, Yufeng Zhang, Lei Zhang. Study on urban microclimate in hot-humid region of China - a literature review

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P5-33 Toshiaki Ichinose (National Institute for Environmental Studies / Nagoya University), Kazunori Suzuki, Koujiro Suzuki, Satoko Seino. Research on effect of urban thermal mitigation by heat circulation through Tokyo Bay

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