BS2011: Monday 14th November

SESSION	ENDEAVOUR 1 ROOM	Presenter	ENDEAVOUR 2 ROOM	Presenter	ENDEAVOUR 3 ROOM	Presenter	SIRIUS ROOM	Presenter	LA PEROUSE 1 ROOM	Presenter	DISCOVERY ROOM	Presenter	LA PEROUSE 2 ROOM	Presenter
	What Simulation Can Do in Design Process I		**Building Services I**		**Simulation for Commissioning, Controls, Monitoring I**		**Case Studies I**		**Simulation vs Reality I**		**Limitations of Simulations in Practice I**		**BIM I**	
	Session Chair: Graham Carter		**Session Chair: Jeff Spitler**		**Session Chair: Phil Haves**		**Session Chair: Malcolm Cook**		**Session Chair: Michel Bernier**		**Session Chair: Jan Hensen**		**Session Chair: Michael Wetter**	
1030-1050	1615: The meaning and value of information for energy-conscious architectural design	Capeluto, Guedi	1573: Analyzing the potential of low exergy building refurbishment by simulation	Goffin, Philippe	1189: A verification test bed for building control strategy coupling TRNSYS with a DDC controller	Pan, Yiqun	1446: Energy saving potentials of a 100% outdoor air system integrated with indirect and direct evaporative coolers for cleanroom	Kim, Min-Hwi	1174: Building satisfaction - Using thermal modelling to identify areas of building use focus for post occupancy evaluation	Raj, Alissa Jeyam	1134: Towards strategic use of BPS tools in Egypt	Attia, Shady G.	1540: Modeling for building energy performation improvement in accordance with the local climatic settings: A case of a generalizable building design of intermediate health care facilities in Thailand	Somboonwit, Nuttasit
1050-1110	1427: Using computer simulation as a tool to develop a Net-Zero Energy Code for Tucson, Arizona	Chalfoun, Nader Victor	1567: Integrated dynamic electric and thermal simulations for a residential neighborhood: Sensitivity to time resolution of boundary conditions	Baetens, Ruben	1199: Building performance simulation for the management of thermal performance risks in buildings subject to climate change	de Wilde, Pieter	1448: Underfloor air distribution integrated with an indirect and direct evaporative cooling assisted 100% outdoor air system	Seok, Youn-Jin	1401: Modeling a solar chimney for maximum solar irradiation and maximum airflow, for low latitude locations	Neves, Leticia de Oliveira	1907: A real-life experience of using dynamic building simulation for building environmental performance assessment in Turkey	Bayraktar, Meltem	1231: A simulation based fault diagnosis strategy using extended Heat Flow Models (HFM)	Lu, Yan
1110-1130	1247: Assessing community-scale energy supply scenarios using TRNSYS simulations	Courchesne-Tardif, Antoine	1613: Energy saving by cooperative operation between district heating and cooling plant and building HVAC system	Uno, Yoshitaka	1251: Real time model-based energy diagnostics in buildings	O'Neill, Zheng	1926: Lessons learned in modeling underfloor air distribution system	Lee, Kwang Ho	1216: Calibrated simulation of an existing convention center: The role of event calendar and energy modeling software	Srinivasan, Ravi S.	1133: Air tightness of Australian offices buildings: reality versus typical assumptions used in energy performance simulation.	Egan, Aileen Marie	1391: Transforming IFC architectural view BIMs for energy simulation: 2011	Wong, Justin
1130-1150	1639: Italian benchmark building models: the large office building	Fabrizio, Enrico	1626: The relationship between heat load profile and energy efficiency in district heating and cooling plant	Hattori, Yuki	1263:Identification of the electric chiller model for the EnergyPlus program using monitored data in an existing cooling plant	Zmeureanu, Radu	1187: Dispersion behaviors of exhaled droplets under a displacement ventilated room: Lagrangian simulations	Gao, Naiping	1740: A software tool that supports the comparison of measured and simulated building energy performance data	Maile, Tobias	1299: Value of building simulation in sport facilities operation	Costa, Andrea	1728: Towards a BIM-based service oriented platform: Application to building energy performance simulation	Cormier, Anthony
1150-1210	1550: Formulating a Building Climate Classification Method	Cory, Shaan	1849: Dynamic insulation applied to a residential building (Part 1) Numerical Evaluation of Window Frame applied Various Dynamic Insulation Patterns	Oura, Yutaka	1323: Exploring the energy performance of simulation-powered lighting and shading systems controls in buildings	Mahdavi, Ardeshir	1778: Whole-building performance simulation of a low-energy residence with an unconventional HVAC system	Karaguzel, Omer Tugrul	1922: Improving energy modeling of large building stock through the development of archetype buildings	Corgnati, Stefano	1257: Comparison of turbulence models in simulating key elements of outdoor wind environment around building complex	Wang, Bing	1223: A domain data model for whole building energy simulation	O'Donnell, James Thomas
1210-1230	1857: The thermal performance evaluation of future Chinese low-energy apartments within changing climate in 'Hot summer and cold winter' climatic zone in China	Wang, Xi	1850: Dynamic insulation applied to a residential building (Part 2) Numerical Evaluation of Thermal Insulation Effect on Air Supply Window System	Lee, Sihwan	1356: Application of commissioning process to VRF system using energy simulation	Murayama, Hiroyuki	1250: Assessing chilled water system retrofit through data-log-based simulation	Chang, Cheng	1221: Stochastic Modeling of Moisture Supply in Dwellings based on Moisture Production and Moisture Buffering Capacity	Johansson, Pär	1590: Sampling based on Sobol' sequences for Monte Carlo techniques applied to building simulations	Burhenne, Sebastian	1173: Investigation on the effect of phase changing materials on the thermal performance of a green house using finite volume method	Luo, Caimao
1230-1250	1433: Learning by playing – Teaching energy simulation as a game	Reinhart, Christoph F	1359: Empirical evaluation of a predictive simulation-based control method	Schuss, Matthias	1730: Inverse modelling for the assessment of buildings energy behaviour	Nassiopoulos, Alexandre	1570: Effect of heat discharge by natural ventilation on indoor environment and heat removal structure	Habara, Hiromi	1422: Enhancement of the UK Standard Assessment Procedure (SAP) Solar water heating prediction algorithm using parametric dynamic thermal simulations	Murphy, Gavin Bruce	1569: Development of modeling and simulation strategies for large-scale urban districts	Huber, Joerg	1335: The role of MVD in defining curtain wall system for energy analysis	Wong, Justin
	What Simulation Can Do in Design Process II		**Building Services II**		**Simulation for Commissioning, Controls, Monitoring II**		**Case Studies II**		**Simulation vs Reality II**		**Limitations of Simulations in Practice II**		**BIM II**	
	Session Chair: Yingxin Zhu		**Session Chair: Roberto Lamberts**		**Session Chair: PC Thomas**		**Session Chair: Trevor Lee**		**Session Chair: Veronica Soebarto**		**Session Chair: Joel Neymark**		**Session Chair: John Mitchell**	
1350-1410	1425: Using energy simulation and real-time data monitoring to investigate thermal performance of exterior cavity walls	Chalfoun, Nader Victor	1562: Evaluation of the effect of batteries in district level smart grid	Takamura, Shiori	1760: Heat pump modelling for annual performance, design and new technologies	Afjei, Thomas	1548: Assessing the Performance of Building Envelopes Incorporating Significant Thermal Mass	Williamson, Terry	1254: The scientific approach to building simulations	Arnold, Patrick John	1300: A theoretical method to quickly identify multiple constant contaminant sources indoors by limited number of ideal sensors	Li, Xianting	1689: What architects want? Between BIM and simulation tools: an experience teaching Ecotect.	Palme, Massimo
1410-1430	1423: Effect of roof shape on energy yield and positioning of roof mounted wind turbines	Abohela, Islam	1311: Analysis of energy saving potential and optimization of thermally broken fiberglass window frames	Zajas, Jan	1637: Large-eddy simulation of indoor dispersion of expiratory aerosol	Hasama, Takamasa	1136: Computer Simulation and Experimental Results for an Experimental Hut with PCM Impregnated Building Material	Farid, Mohammed.M	1322: Comparison of models for the derivation of diffuse fraction of global irradiance data	Mahdavi, Ardeshir	1755: Application of dynamic thermal networks to the modelling of foundation heat exchangers	Jeffrey Spilter	1708: Integrated building design, information and simulation modelling: The need for a new hierarchy	Hetherington, Robina
1430-1450	1431: Sky high and back again: The evolution of simulation-based design from aerospace to construction	Toth, Bianca	1410: A simulation-based analysis of photovoltaic system adoption for residential buildings in Asian countries	Wu, Qiong	1793: Simulation-based approaches for building control system design and integration	Treado, Stephen	1479: Thermal simulations of the effects of vegetated walls on indoor building environment	Altan, Hasim	1475: Comparison of measured and calculated values for the indoor environment in one of the first Danish passive houses	Larsen, Tine Steen	1281: A heterogeneous system simulation of a double skin façade	Kim, Deuk-Woo	1476: Systematice development of an operational BIM utilising simulation and performance data in building operation	Corry, Edward Joseph
1450-1510	1527: Modeling of heat transfer in geothermal heat exchanger using GHX zonal model method	Choi, Moon Jung	1138: Representation of HVAC in Common SImulation Packages	Bannister, Paul	1784: Adjustment of hydronic systems in central cooling/heating plants to reduce pump electricity consumption	Nagai, Tatsuo	1176: Linking field data of tree shade on walls to develop an effective predictive model in IES for the energy benefits of trees	Jensen, Chris	1321: Comparison of computed and measured irradiance on building surfaces	Orehounig, Kristina	1535: Investigating glazing system simulated results with real measurements	Luther, Mark Brandt	1702: Architecture data and energy efficiency simulations: BIM and interoperability standards	Osello, Anna
1510-1530	1373: A low-energy retrofit study of an off-gas Welsh village using renewable energy simulation combined with the UK standard assessment procedure	Gupta, Apeksha	1578: Integration of HVAC models into a hygrothermal whole building simulation tool	Burhenne, Sebastian			1407: Numerical prediction of water-flow glazing performance with reflective coating	Li, Chunying	1923: Modelling occupant behaviour for a better prediction of building energy performance	Corgnati, Stefano	1438: Picasa for building performance simulation – An interactive data organization and visualization system for daylight simulations	Reinhart, Christoph F	1930: Development of a comprehensive user interface for the EnergyPlus whole building energy simulation program	Haves, Phil
	Software Issues I		**Building Services III**		**Simulation for commissioning, controls, monitoring III**		**Case Studies III**		**Simulation vs Reality III**		**Limitations of simulations in practice III**		**Validation, Calibration and Testing I**	
	Session Chair: Zheng O'Neill		**Session Chair: Karel Kabele**		**Session Chair: Radu Zmeureanu**		**Session Chair: Lori Mc Elroy**		**Session Chair: Terry Williamson**		**Session Chair: Ravi Srnivasan**		**Session Chair: Christoph van Treeck**	
1600-1620	1159: Computer tool to aid natural and artificial light integration in building design	Virgone, Joseph	1603: Advanced analysis of coupled 1D / 3D simulation models by the use of a solar thermal system	Ljubijankic, Manuel	1319: Case study of applying different energy use modeling methods to an existing building	Malkawi, Ali	1511: Users' behavior and energy performances of Net Zero Energy Buildings	Lenoir, Aurélie	1661: Comfort and building performance analysis of transparent building integrated silicon photovoltaic	Mende, Sandra	1148: Early design simulation tools for Net Zero Energy Buildings: A comparison of ten tools	Attia, Shady G.	1177: IEA BESTEST multi-zone non-airflow in-depth diagnostic cases	Neymark, Joel
1620-1640	1741: SIMEB: simplified interface to DOE2 and Energy Plus - A user's perspective – Case study of an existing building	Sansregret, Simon	1682: A simulation assisted design tool for boiler room hydronics	Vandenbulcke, Roel	1467: Simulation of solar hot-water supply and air-conditioning/ventilation system	Momoi, Yoshihisa	1789: Statistical modeling for anomaly detection, forecasting and root cause analysis of energy consumption for a portfolio of buildings	Lee, Young M.	1468: Urban modelling for resource performance analysis: estimating cities' renewable energy potential	Sarralde, Juan José	1214: Post-occupancy evaluation or evidence based user patterns for an integrated building simulation method	Samarakoon, Erandi	1507: Statistical calibration of CFD modelling of street canyon flows	Guillas, Serge
1640-1700	1897: Procedure for performance diagnostic for small air conditioning systems using dynamic simulations	Lucas, Franck	1137: Application potential of ground-source heat pumps for multi-storey buildings in Hong Kong	Lam, H. N.	1222: Calibration of a detailed BES model to measured data using an evidence-based analytical optimisation approach	Coakley, Daniel	1826: Analysis of evacuation performance of merging points in Stadiums Based on Crowd Simulation	Liu, Ying	1829: Automated fault detection and diagnosis of HVAC subsystems using statistical machine learning	West, Samuel R.	1520: Occupant behavior model for households to estimate high-temporal resolution residential electricity demand profile	Yamaguchi, Yohei	1184: Identification of an analogic RC model based on step response and genetic algorithms	Fraisse, Gilles
1700-1720	1839: Online software platform for dedicated product related simulations	De Coninck, Roel	1149: Estimation of annual energy loss by indoor air mixing	Mihara, Kuniaki	1161: Formal calibration methodology for a CFD model of a naturally ventilated room	Hajdukiewicz, Magdalena	1454: Quantification of retrofit measures on a multi-family residential building for different European climates with detailed and simplified calculation tools	Zweifel, Gerhard	1531: A critical assessment of the use of data in building energy performance simulation	Bazjanac, Vladimir	1259: Gaining confidence in models of experiements in existing buildings	Hand, Jon William	1360: Runtime simulation calibration and validation using a multi-layered monitoring system	Zach, Robert
1720-1740	1271: Fast computation of incident solar radiation from preliminary to final building design	Greenberg, Donald P & Jones, Nathaniel L.			1924: Real-time building simulation using EnergyPlus and the building controls virtual test bed	Haves, Philip	1324: Energy efficiency potential of communal living models	Mahdavi, Ardeshir	1941: Experimental and simulation study of hybrid ground-source heat pump systems with unglazed solar collectors	Kummert, Michael	1899: Impact and source of uncertainties in high efficiency building simulation: some exam	Goffart, Jeanne	1428: Validation of MESTRE building simulation system according to BESTEST multi-zone, non-airflow, in-depth diagnostic cases	Schmid, Aloísio Leoni