

# BS2011: Tuesday 15th 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 III		New Work in Simulation I		Energy Capture & Operation I		Case Studies IV		Simulation vs Reality IV		Optimization I		Validation, Calibration and Testing II	
	Session Chair: Gerhard Zweifel		Session Chair: Yoshiyuki Shimoda		Session Chair: Mark Luther		Session Chair: Christoph Reinhart		Session Chair: Paul Bannister		Session Chair: Pieter de Wilde		Session Chair: Joe Clarke	
1030-1050	1749: Thermal insulation of building envelope toward zero energy design in hot-humid climate	Westphal, Fernando Simon	1155: Acceleration of a Radiance program for lighting simulation in parallel by using OpenCL	Wetter, Michael	1135: Heating and cooling in high-rise buildings using façade integrated transparent solar thermal collector systems	Maurer, Christoph	1234: The design of the The Cooperative Head Office Manchester	Webster, Jim	1927: Issues and solutions to realistically simulating high solar reflectance roofs	Carter, Thomas Graham	1582: Development of the automatic optimization and degradation detection tool for HVAC primary system	Sumiyoshi, Daisuke	1492: The creation of generic energy simulation models which represent typical commercial buildings and their calibration against real energy data	Cory, Shaan
1050-1110	1497: Combined CFD-Mean energy balance method to thermal comfort assessment of buildings in a warm tropical climate	Sanquer, Stéphane	1327: Climate Energy Index and Building Energy Index: New indices to assess and benchmark building energy performance	McLean, Don	1616: Feed-forward air-conditioning control using a weather forecasting data in school building in heating season	Utsumi, Yasuo	1545: CFD benchmarking: Hamer Hall Auditorium case study	Calderone, Anthony	1591: Analysis and modeling of energy demand of retail stores	Suzuki, Yusuke	1779: Design optimization of a contemporary high performance shading screen-integration of 'form' and simulation tools	Omidfar, Azadeh	1180: The Building Energy Simulation Test for Existing Homes (BESTEST-EX) Methodology	Neymark, Joel
1110-1130	1544: Potential saving in lighting energy due to advancement in Indian standard time: An enquiry in context of commercial office spaces in India	Rawal, Rajan	1748: Convection coefficients for building simulation	Ian Beausoleil-Morrison	1238: An active breathing wall to improve indoor environment	Zhao, Yue	1720: Potential for energy savings in retrofitting of an office building in SÃO PAULO / BRAZIL.	Pasquali, Fernando Ernesto	1362: Closing the Loop. Office Tower Simulation Assumptions vs Reality.	Binks, Jeffrey Ivan	1462: Multi-objective optimisation for CHP and CCHP decision-making	Evins, Ralph	1587: Modeling and experimental validation in dry and wet conditions of an air-to-air heat recovery exchanger	Gendebien, Samuel
1130-1150	1628: Integration of solar photovoltaics to suffice the optimized interior lighting energy consumption	Mathur, Jyotirmay	1890: Parameterization of the solar absorption characteristics on a group of buildings for regional scale analysis	Nishioka, Masatoshi	1500: Zero emission building envelopes - Numerical simulations of a well insulated building with Phase Change Material panels integrated in the floor	Haavi, Thomas	1286: Determination of cooling strategy on a 200m high glazed lift shaft: a CFD approach	Jolly, Guillaume Francois	1195: The Contribution of Simulation to the Building Tuning Process for Durack 2	Osborne, Geoffrey Hamish	1326: Building form optimization in early design stage to reduce adverse wind condition - Using Computational Fluid Dynamics	Yi, Yun Kyu	1593: Variation of green building ratings due to variances in sky definitions	Mike Donn
1150-1210	1725: Effect of surface reflectance on lighting efficiency in interiors	Singh, Rohini	1912: Efficient simulation of complex fenestration systems in heat balance room models	Barnaby, Charles S.	1126: A study on total utility demand prediction considering variation of occupants' behavior schedules for multi dwellings site	Tanimoto, Jun	1514: Energy consumption analysis of house in Lhasa based on survey and simulation	Li, En	1466: Design and validation of a façade zigzag-shading model	Maderspacher, Johannes	1219: Building Envelope Optimization using Energy Analysis in Environmental Building Design.	Srinivasan, Ravi S.	1713: Moisture transport in wood - model to create input data to estimate the risk of mould growth	Arvidsson, Jesper
1210-1230	1366: Electricity load management in smart home control	Iglesias Vázquez, Félix	1197: Coupling Heterogeneous Computational Codes for Human-centred Indoor Thermal Performance Analysis	van Treeck, Christoph	1371: Household electricity simulation: Demand, PV generation and demand-supply control methods	Fujimoto, Takuya	1534: Adoption analysis of distributed energy resource with the climate consideration in hospital facilities of Japan	Gu, Qunyin	1353: The empirical validation of the 'AccuRate' software envelope model: Concrete slab-on-ground floored test building	Dewsbury, Mark	1683: Exploring the potential of climate adaptive building shells	Loonen, Roel	1769: Energy model validation of heated outdoor swimming pools in cold weather	Sansregret, Simon
1230-1250			1751: A building simulation environment for analysis of water spray evaporative cooling	Silva, Antonio Cesar Silveira Baptista Da			1566: Energy performance of passive school buildings - An analysis of building properties and boundary conditions	Saelens, Dirk	1296: Calibrating micro-level models with macro-level data using Bayesian regression analysis	Booth, Adam Thomas			1604: Experimental and ray tracing evaluation of the transmittance of glazing systems with selective coatings, at oblique angles of incidence.	Baldinelli, Giorgio
	What Simulation Can Do in Design Process IV		New Work in Simulation II		Energy Capture & Operation II		Case Studies V		Human Aspects in Simulation I		Optimization II		Validation, Calibration and Testing III	
	Session Chair: Veronica Soebarto		Session Chair: Ian Beausoleil-Morrison		Session Chair: Jeff Spitzer		Session Chair: Terry Williamson		Session Chair: Kwok Wai Tham		Session Chair: Fernando Simon Westphal		Session Chair: Ali Malkawi	
1350-1410	1787: Understanding Net Zero Energy Buildings: Evaluation of load matching and grid interaction indicators	Salom, Jaume	1226: Exergy analysis of residential heating systems: performance of whole system vs performance of major equipment	Zmeureanu, Radu	1641: Coupling strategy of HVAC system simulation and CFD (Part 1): Case study on air conditioning system using OA floor in design phase	Yoon, Gyuyoung	1445: Calibrated simulation model case studies in Australia	Taylor, Peter Alan	1696: The 'adaptive zone' – A concept for assessing glare throughout daylight spaces	Jakubiec, John Alstan	1316: Boiler, thermal storage and solar collector: Energy balance based model and its optimization	Grahovac, Milica	1267: Using building simulation to evaluate low-carbon refurbishment options for airport buildings	Parker, James
1410-1430	1451: A simple user interface for energy rating of buildings	Yezioro, Abraham	1121: AusZEH Design: Software for low-emission and zero-emission house design in Australia	Ren, Zhengeng	1667: Coupling strategy of HVAC system simulation and CFD (Part 2): Study on mixing energy loss in an air-conditioned room	Iizuka, Satoru	1529: Simulation versus reality – 4 case studies	Calderone, Anthony	1676: A model of occupants' activities based on time use survey data	Wilke, Urs	1249: Modelling of a biomimetic façade based on animal fur	Webb, Matthew	1772: A probabilistic model for assessing energy consumption of the non-domestic building stock	Choudhary, Ruchi
1430-1450	1421: A simplified dynamic systems approach for the energy rating of dwellings	Murphy, Gavin Bruce	1389: Space Layout in Occupant Behavior Simulation	Goldstein, Rhys	1664: Energy performance of chillers with water mist assisted air-cooled condensers	Chan, Kwok Tai	1332: 275 George Street, Brisbane	Gentner, Andrew	1502: Blinds down-under – An integrated design approach for tight refurbishment budgets in different climate zones in Australia	Begert, Christoph	1463: Holistic multi-objective optimisation of the configuration and control of a double-skin façade	Evins, Ralph	1123: Visualizing patterns in building performance data	Raftery, Paul
1450-1510	1858: Benchmarking plug-load densities for K-12 schools	Srinivasan, Ravi S.	1206: BACnet and analog/digital interfaces of the building controls virtual test bed	Wetter, Michael	1171: Thermal storage options for solar heated buildings	Snoek, Chris W	1896: Thermal and energy modelling of Net Zero Energy options for a Sustainable Buildings Research Centre	Cooper, Paul	1714: Thermal comfort in naturally ventilated classrooms: application of coupled simulation models	Cook, Malcolm John	1208: Computational building performance simulation for product and design development and optimization	Hensen, Jan.	1413: Validation of Reynolds averaged model and large eddy simulation in actual floor heating room	Ono, Hiroki
1510-1530	1801: An Integrated approach to energy analysis in building design – The relocatable classroom project	Iyer-Raniga, Usha	1147: A coupled building ventilation and thermal model incorporating passive airflow components	Alemu, Alemu Tiruneh	1489: The influence of thermal mass on the space conditioning energy and indoor comfort conditions of buildings	Perez, Nicolas	1341: Six green stars in a warm tropical climate - William McCormack Place Phase 2 - Case Study	Cladingboel, Roger Edward	1181: Integrated Building Control based on Occupant Behavior Pattern Detection and Local Weather Forecasting	Dong, Bing	1298: Climate data for building optimisation in design and operation	Lee, Trevor Roland	1554: Validation of a hygrothermal whole building simulation software	Antretter, Florian
	What Simulation Can Do in Design Process V		New Work in Simulation III		Weather Simulation		Case Studies VI		Human Aspects in Simulation II		Optimization III		Validation, Calibration and Testing IV	
	Session Chair: Per Heiselberg		Session Chair: Michael Wetter		Session Chair: Dru Crawley		Session Chair: Jon Hand		Session Chair: Rune Andersen		Session Chair: Michel Bernier		Session Chair: Karel Kabele	
1600-1620	1635: Extension of the dynamic transfer characteristics under sinusoidal periodic boundary condition to real periodic solicitation conditions for the envelope opaque components	Baratieri, Marco	1766: Multi-period optimization of building refurbishment decisions: Assessing options and quantifying risk under economic uncertainty	Rysanek, Adam	1744: Summer load evaluation in the Italian climate: Sensitivity of the loss utilization factor to the weather data	Baggio, Paolo	1939: Multifunctional whole building simulation as a method in assessing retrofitting strategies in historical buildings	Widstrom, Torun	1289: Validation of an active chilled beam design for a healthcare facility	Devlin, Nick Iain	1386: Optimization of local renewable energy systems using automotive simulation approaches	Schwan, Torsten	1638: Heat and mass transfer modeling in Vacuum Insulation Panels, towards long term thermal performance simulation.	Bouquerel, Mathias
1620-1640	1752: Comparative analysis of the performance of irregular shaped double skin facades	Hamza, Neveen	1756: Application and limitations in the use of regionally derived and future probabilistic climate data in Passivhaus design	McLeod, Robert S	1294: Changing climate: Ersatz future weather data For lifelong system evaluation	Lee, Trevor Roland	1368: Simulation of thermal comfort in soccer stadia using TRNSYS 17	Frenzel, Christian	1835: Effect of operative temperature based thermostat control as compared to air temperature based control on energy consumption in highly glazed	Garg, Vishal	1894: Operational optimization of actual energy systems by means of the energy hub theory	Fabrizio, Enrico	1866: Development of a predictive model for power consumption of air-to-water heat pumps for residential house	Miura, Hisashi
1640-1700	1597: Passive hygrothermal control of a museum storage building	Christensen, Jorgen Erik	1245: OpenStudio: An Open Source Integrated Analysis Platform	Davis, Oliver	1264: Modelling the impact of new UK future weather data on a school building	Du, Hu	1432: Field study of the performance of distributed energy resource in Kitakyushu Eco-Campus, Japan	Shi, Xingzhi	1833: Climate based simulation of different shading device systems for comfort and energy demand analysis	Wienold, Jan	1762: UUsing building simulation and optimization to calculate Control Lookup Tables offline	Coffey, Brian Edward	1600: Three complementary methods to determine heat losses of dwellings	Koene, Frans G
1700-1720	1646: Economic performance assessment of the deployment of rooftop Photovoltaic (PV) systems for industrial halls	Lee, Bruno	1217: Re(def)ining Net Zero Energy: Renewable Energy Balance of Environmental Building Design.	Srinivasan, Ravi S.	1536: New Zealand's new weather data - How different?	Gates, Anthony John	1898: Thermal and ventilation performance of a multifunctional sports hall within an Aquatic Centre	Rajagopalan, Priyadarsini	1940: Improving the design process using simulations and multi-criteria decision making	Tham, Kwok Wai	1560: Optimizing building designs using a robustness indicator with respect to user behavior	Hoes, Pieter-Jan	1629: A cost-effective model and measurement-based methodology for ongoing commissioning	Herkel, Sebastian
1720-1740	1831: Exploitation of the environmental energy resources : indicators and design strategies	Chesné, Lou	1269: Identifying non-technical barriers to energy model sharing and reuse	Samuelson, Holly Wasilowski			1537: The application of a dynamic thermal model for the assessment of the energy efficiency of Adelaide Airport Terminal 1	Lau, Timothy C. W.			1241: Optimizing the length of air supply duct in cross connections rooms of Gotthard Base Tunnel	Yousaf, Rehan	1799: Risk analysis of energy-efficiency projects based on Bayesian calibration of simulation models	Heo, Yeonsook