



Issue 8  
July 2013

# IBPSA-USA Newsletter



*After dinner presentation of Per Sahlin at the IBPSA-USA Semi-Annual Meeting in Denver, CO.*

## Upcoming Events

Building Simulation 2013, Chambéry France, Aug. 25-30, 2013  
EMC/SimBuild 2014 conference, abstracts due, Nov. 4, 2013  
IBPSA-USA semi-annual meeting, New York, NY, Jan. 18, 2014  
ASHRAE conference, New York, NY, Jan. 19-22, 2014

## About this Newsletter

The IBPSA-USA Newsletter will be published every 3 months to inform its membership about current and emerging events in building simulation. To submit articles, send email to [newsletter@ibpsa.us](mailto:newsletter@ibpsa.us)

## IBPSA-USA Semi-Annual Meeting

IBPSA-USA held its 2013 Annual Meeting on June 22, 2013 at the Wynkoop Brewing Company in Denver Colorado. 95 people attended the meeting, setting a new high for attendees.

After a brief call to order the pre-dinner program kicked off with three main sessions. Maurya McClintock and Chris Green from the AIA gave a brief presentation to spur collaboration between AIA

and IBPSA-USA to enhance the effectiveness of building modeling in design practices, particularly through new educational methods and venues. John Kennedy was the next presenter, discussing Autodesk's activities in light of growing demand for building performance analyses and growing emphasis on Building Information Modeling (BIM). Some of the highlights included new Revit features to enhance BIM modeling, new illuminance rendering capabilities, and a new API for Green Building Studio. Gregor Henze and Jim Braun reported on the Intelligent Building Operation meeting held during the previous days in Boulder, Colorado. 130 participants gathered to discuss Model Predictive Control (MPC) including identification of the barriers and key applications.

The three pre-dinner presentations were then followed

by general announcements and social hour. During the business meeting the organization's financial status was presented, as well as updates pertaining to the joint 2014 ASHRAE/IBPSA-USA Building Simulation Conference. Erik Kolderup discussed the new membership structure and potential benefits for dues-paying members. Erik and Chris Balbach reviewed activities by the IBPSA-USA chapters. Dinner included several local Colorado options, with beer brewed on-site available.

Per Sahlin gave the presentation "Large-Scale Building and System Models on Parallel Hardware" during dinner, which provided methods used to reduce simulation time for large equation-based models by performing certain calculations in parallel paths, or by simulating portions of a model and then combining the results. The talk

also reviewed some example applications using IDA/ICE modeling software.

Slides for the presentations will be posted on <http://www.ibpsa.us>.

The next meeting for IBPSA-USA will be January 18th, 2014 in New York City. The venue is not yet determined, but the time should be similar to past meetings.

## **EMC / SimBuild 2014**

On September 8-12, 2014, ASHRAE and IBPSA-USA will jointly host the EMC/SimBuild 2014 conference at the Marriott Buckhead Hotel and Conference Center in Atlanta, Georgia

This conference merges the IBPSA-USA SimBuild and ASHRAE Energy Modeling Conferences. ASHRAE and IBPSA-USA are convening this conference to improve the industry's ability to accurately model building performance. The focus is on making better decisions through the application of simulation and modeling over the entire building life cycle from the earliest concept through operation and maintenance. The conference brings together the building energy analysis and performance simulation community for three days of discussion, seminars, and short courses. Modelers, software developers, owners, and researchers will address the practices of energy modeling and building performance simulation using existing simulation tools, software development, and future simulation research and applications.

The theme of the conference is "BIM, BEM and SIM – Integrated Building Design and Modeling."

### *Call for Papers and Presenters*

The conference seeks papers on topics addressing the integration and interoperability of analytic modeling tools (BEM and SIM) with physical modeling tools (BIM) including, but not limited, to:

- Energy efficiency
- HVAC component modeling
- Urban scale modeling
- HVAC load analysis
- Lighting and daylighting
- Combined use of tools
- Co-simulation
- Optimization
- Algorithm advances
- Computational fluid dynamics
- Data exchange
- Data Interoperability
- Energy auditing
- Life cycle cost analysis
- Economic analysis
- Model calibration
- Model validation

Papers describing workarounds, case studies, how to's, challenges, barriers, and cloud based solutions are welcome. Paper Abstracts (400 or less words in length) are due November 4, 2013. If accepted, papers are due March 3, 2014. Papers that are accepted and presented will be included in conference proceedings available via the IBPSA-USA web site.

In addition to refereed papers, EMC / SimBuild 2014 will include informal seminar presentations that will not be included in the proceedings. A call for presenters will be circulated at a later date with abstracts due February 2014. Keynote speakers and other invited speakers from around the world will complete the conference program.

Vendor training and courses will be offered on 9/7 and 9/8 with the main conference occurring on 9/10-9/12. For more information, see <http://www.ashrae.org/Simulation2014>.

## **IEA EBC Annex 60**

On June 14 2013, the IEA Energy in Buildings and Communities Programme (EBC, formerly ECBCS) Executive Committee approved that Annex 60, "new generation computational tools for building and community energy systems based on the Modelica and Functional Mockup Interface standards," switches from the preparation phase to the three-year working phase, taking effect on July 1, 2013.

The objectives of Annex 60 are to develop and demonstrate next-generation computational tools that allow building and community energy grids to be designed and operated as integrated, robust, performance based systems.

Annex 60 will create and validate tool-chains that link Building Information Models to energy modeling, building simulation to controls design tools, and design tools to operational tools. The technology will allow optimized design, analysis and operation of multi-domain systems as posed by building and community energy systems. It will also allow using models across the whole building life cycle to ensure realization and persistence of design intent.

For further information, visit <http://www.iea-annex60.org>.

## BEMBook Workshops

IBPSA-USA presents several workshops about Building Energy Modeling. These workshops cover modeling fundamentals, ASHRAE 90.1 performance rating, modeling best practices, modeling to inform design and measurement & verifications. Slides can be downloaded from [http://www.bembook.ibpsa.us/index.php?title=Workshop\\_Downloads](http://www.bembook.ibpsa.us/index.php?title=Workshop_Downloads)

The next workshop are as follows:

September 16 and 26, 2013 (Two-part webinar)  
[ASHRAE Learning Institute](#)  
Instructors: Erik Kolderup, McHenry Wallace

January 21, 2014, New York City  
ASHRAE Winter Meeting  
Instructors: Erik Kolderup, Annie Marston

For future workshops, visit [http://www.bembook.ibpsa.us/index.php?title=Workshop\\_Plan\\_and\\_Status](http://www.bembook.ibpsa.us/index.php?title=Workshop_Plan_and_Status)



## IBPSA-USA Regional Chapters

### *Chicago*

Chicago has been approved to become the latest provisional chapter of IBPSA-USA. For contact information, see <http://www.ibpsa.us/chapters.shtml>

### *Washington DC*

The IBPSA National Capital Chapter will be holding a lecture on July 31st from 6-8pm at the DC Sustainable Energy Utility (SEU) Headquarters. Patti Boyd, Manager of Engineering of the DC SEU will give a talk about the SEU's programs and how they integrate with broader sustainability efforts in Washington DC. Other members of the regional simulation community will present case studies of their work.

*Boston*

The IBPSA-Boston chapter elected new board and committee members, whose two year term starts immediately and will run until Spring 2015.

Welcome the new board:

Administration

President - Seth Holmes

Vice President - Arta Yazdanseta

Secretary - Alejandra Menchaca

Treasurer - Eric Studer

Outreach Chair- Apoorv Goyal

Technical Committee

Holly Samuelson

Christoph Reinhart

Diego Ibarra

Christopher Schaffner

And thanks to the outgoing board:

Administration

President – Holly Samuelson

Secretary – Carlos Alonso-Niemeyer

Treasurer – Mickey Bush

Technical Committee

Sian Kleindienst

Nicholas Gayeski

Christoph Reinhart

Diego Ibarra