

# TENTATIVE TECHNICAL PROGRAM



## **SECOND SYMPOSIUM ON BUILDING SCIENCE AND THE PHYSICS OF BUILDING ENCLOSURE PERFORMANCE**

Sponsored by ASTM Committees E06 on Performance of Buildings, D08 on Roofing and Waterproofing, and C16 on Thermal Insulation.

June 7-8, 2022

Virtual

Symposium Co-Chairs: Dan Lemieux  
Wiss, Janney, Elstner Associates, Inc.  
Falls Church, VA, USA

Jennifer Keegan  
GAF  
Parsippany, NJ, USA

### **ABOUT THE SYMPOSIUM**

This symposium will provide a forum for the exchange of ideas on current research, both nationally and internationally, regarding building science and building enclosure performance, with an emphasis on the critical interfaces between horizontal and vertical elements.

It will explore the growing influence of building science on material selection and detailing in both new construction and the adaptive re-use of existing buildings. It will also include testing and assessment of heat/air/moisture transfer, energy use, and the environmental impacts of building enclosures. Invited authors and presenters will rely upon quantifiable research and actual case studies to demonstrate how a fundamental understanding of building science of whole building performance can deliver higher performing buildings and further inform and enrich the fabric of our built environment.

**TUESDAY, JUNE 7, 2022**  
(All times in U.S. Eastern Daylight Time)

- 8:00 AM      **Opening Remarks**  
Jennifer Keegan and Dan Lemieux, Symposium Chairs
- 8:30 AM      **Low-slope Roofing Installations and 3rd Party Observations: A Critical Review of Non-compliance Management**  
Benjamin Meyer, Kristin Westover and Keith Nelson
- 9:00AM      **Coordination of ASTM Standards for Thermal Insulation Materials Installed in Exterior Cavity Wall Applications**  
Jodi Knorowski
- 9:30 AM      **Pillow Talk: ETFE Design and Quality Control Testing**  
Andrea DelGiudice and Martina Driscoll
- 10:00 AM      BREAK  
  
**Moderator:** Emily Lorenz, IIBEC
- 10:30 AM      **An Investigation of Stucco Wall Assembly Performance by Hygrothermal Simulation**  
Theresa Weston
- 11:00 AM      **Moisture Load to a Vinyl-Clad Wall Assembly for Selected Canadian Cities**  
Zhe Xiao
- 11:30 AM      **Design and Detailing Air and Weather Barrier Transitions at Fenestrations**  
Derek Ziese
- 12:00 PM      LUNCH (on your own)  
  
**Moderator:** Michael Lacasse, National Research Council Canada (NRC)
- 1:00 PM      **Considerations for Unitized Building Enclosure Systems**  
Emily Hopps
- 1:30 PM      **Three Dimensional Thermal and Condensation Risk Analysis of Cantilevered Curtain Wall Elements**  
Andrew Dunlap and Ryan Asava
- 2:00 PM      **The Challenges and Progress in Measuring the Durability of Building Envelope Materials**  
Christopher White
- 2:30 PM      **Closing Remarks**  
Jennifer Keegan, Symposium Chair
- 2:45 PM      SYMPOSIUM ADJOURNS FOR THE DAY

**WEDNESDAY JUNE 8, 2022**  
(All times in U.S. Eastern Daylight Time)

- 8:00 AM     **Opening Remarks**  
Jennifer Keegan, Symposium Chair
- 8:30 AM     **Calibrated Energy Modeling Importance - A Sensitivity Analysis of Building Enclosure Performance Factors**  
John Civitillo and Victoria Civitillo
- 9:00 AM     **Managing Interfaces in Complex Systems**  
Andrea Watts
- 9:30 AM     **Evaluation of Existing Steep Sloped Roof Assemblies for Changes to Thermal, Moisture, and Ventilation Performance: A New Joint E06/D08 Standard in Action**  
Carly Wagner
- 10:00 AM    **BREAK**  
  
**Moderator:** Travis Moore, National Research Council Canada (NRC)
- 10:30 AM    **Experimental Thermal Resistance Comparison of a Reflective Insulation in Vertical and Horizontal Furred Airspace Orientations using a Guarded Hot Box**  
Travis Moore
- 11:00 AM    **Moisture Management in Wood Volumetric Modular Construction**  
Kyle Jang
- 11:30 AM    **Evaluate Chemical Permeation Performance of Polymeric Below-Grade Waterproofing Membranes**  
Nicholas Anderson and Xia Cao
- 12:00 PM    **LUNCH (on your own)**  
  
**Moderator:** To Be Determined
- 1:00 PM     **Evaluation Methods, Hazard Risk Assessment and Mitigation of Building Enclosure Design Elements that are Prone to Ice and Snow Collection and Release**  
Michael Carter
- 1:30 PM     **Look Out Below! Addressing Falling Snow and Ice Hazards on Building Facades**  
Amarantha Quintana-Morales and Sean O'Brien
- 2:00 PM     **Development of Weathering Test Protocols for Roof/Wall Interface Materials, Including Components Temporarily Exposed During Storage or Construction**  
Bill Tobin
- 2:30 PM     **Closing Remarks**  
Jennifer Keegan, Symposium Chair
- 2:45 PM     **SYMPOSIUM ADJOURNS**