COMPRESSOR | REFRIGERATION | BUILDINGS

2026 HERRICK CONFERENCES

2026 ANNOUNCEMENT AND CALL FOR PAPERS

SYSTEMS AND INTELLIGENT BUILDINGS SHORT COURSES • **JULY 12, 2026**

HERRICK CONFERENCES • **JULY 13-16, 2026**

28TH COMPRESSOR ENGINEERING • 21ST REFRIGERATION AND AIR CONDITIONING • 9TH HIGH PERFORMANCE BUILDINGS

HOSTED BY PURDUE CENTER FOR HIGH PERFORMANCE BUILDINGS · RAY W. HERRICK LABORATORIES

chpb.engineering.purdue.edu/herrick-conferences

2026 PROPOSED SESSION TOPICS

Compressor Engineering Conference

- Screw Compressors
- Novel Compressors
- Reciprocating Compressors
- Scroll Compressors
- Rotary Compressors
- Centrifugal Compressors
- Compressor Modeling
- Compressor Motors
- Lubricants & Tribology
- Compressor Testing and Evaluation
- Compressors for Alternate Refrigerants
- Oil Management
- Compressor Valves
- Compressors for extreme temperatures
- AI-Assisted Compressor Design, Analysis, and Operation
- Noise, Vibration, and Sound Quality
- New Materials for Compressors
- Advanced Manufacturing for Compressors

Refrigeration & A/C Conference

- Heat & Mass Transfer and Pressure Drops
- Next-Generation Refrigerants
- HVAC&R System Modeling
- Fault Detection & Diagnostics and Sensing
- New Standards and Performance Rating Methods
- Frost and Defrost Characterization
- Heat Exchanger Design and Modeling
- Heat Pump Water Heaters
- Thermal Energy Storage in HVAC&R
- Extreme Climate Heat Pumps
- Residential & Commercial HP & AC Systems
- Commercial & Industrial Refrigeration
- High Temperature Heat Pumps
- Thermally-driven HVAC&R Systems
- Thermal Management of Transportation Equipment
- Thermal Management of Critical Facilities
- Artificial Intelligence for Design and Operation of HVAC&R Equipment
- Advanced Controls in HVAC&R Systems
- Reduced-Order-Models for HVAC&R
- Non-Vapor Compression Technologies

High Performance Buildings Conference

- Grid-responsive Buildings and Intelligent Controls
- Artificial Intelligence Applications in HVAC&R and Built Environments
- Built Environment Solutions for Human Health and Wellbeing
- Building Performance Monitoring and Simulation
- Indoor Environmental Quality (Thermal, Acoustic, Visual, Air)
- Designing for Resilience in Buildings and Infrastructure
- Energy Storage & Heat Pump Technologies
- Building Life-cycle Assessments (LCA)
- Off-site (modular) Building Construction

SHORT COURSES & WORKSHOPS

System Modeling Short Course – Dynamic Modeling, Reduced Order Models and AI-Integration

Coordinated by: Davide Ziviani (Purdue University), Riley Barta (Purdue University)

The HVAC&R industry is rapidly transition to digitalization and AI. Model-based engineering design, data-driven modeling, advanced controls are techniques that will help optimizing systems and equipment and their operations. This short-course will cover topics in dynamic modelings, digital-twins, and machine-learning techniques with applications to HVAC&R systems.

Refrigeration Short Course – Heat Pumps - Technology and Policies Update

Coordinated by: Prof. Craig Bradshaw (UIUC), Prof. Stefan Elbel (TU Berlin) and the U.S. National Committee of the IIR in collaboration with Herrick Laboratories Faculty

Heat pumps are becoming critical technologies across different sectors. Industrial heat pumps and data centers are needing advanced HVAC&R solutions that require innovation at component and system levels. This short course will cover system architectures, optimizations, and use of AI tools for advancing heat pump systems.

Intelligent Building Operation (IBO) Workshop

Coordinated by: Kevin Kircher (Purdue University), Jim Braun (Purdue University), Gregor Henze (University of Colorado)

TThe IBO workshop began in 2011 and typically alternates between the University of Colorado Boulder and Purdue University. In 2026, Purdue will host the IBO workshop in combination with the International Conferences on Compressor Engineering, Refrigeration and Air Conditioning, and High Performance Buildings (HPB). IBO-Purdue will focus on enabling scalable and cost-effective intelligent building operations (such as controls, fault detection and diagnostics, analytics, and data-driven business services) through theoretical developments, algorithmic advances, technology innovations, case studies, and field demonstrations. IBO-Purdue will combine a one-day workshop, featuring invited presentations, with several technical sessions held during the subsequent HPB conference. The technical session presentations will accompany peer-reviewed papers published in the HPB conference proceedings. IBO-Purdue and HPB conference participants can also attend any of the technical sessions associated with the compressor and refrigeration conferences.

2026 STUDENT PAPER AWARDS

The conference organizing committee is pleased to invite students to submit abstracts for the 2026 Student Best Paper Award Competition.

Please note the following updated eligibility information and other guidelines for the competition:

- Students at the undergraduate level and graduate level at the time of the paper submission are eligible to compete.
- Students must be the first author on the submitted papers and must present their work at the conferences to compete.
- Every student paper submission to the 2026 Student Best Paper Award Competition must be accompanied by a separate nomination statement by the advising professor.

Every advising professor may nominate a maximum of two student paper submissions to the 2026 Student Best Paper Award Competition. Cash prizes for each conference will be presented to the top three papers in the amounts of $1000, $500 & $250

ABSTRACT & PAPER SUBMISSIONS

Visit **chpb.engineering.purdue.edu/herrick-conferences** to submit online. Choose most closely related topic area. Submit your 500 word abstract and after acceptance, an 8 page paper. Note that presenting authors must be registered by the May 31, 2026 manuscript deadline. Abstracts and papers must be submitted in English. Word/Latex templates are available on the website

	Registration	Deadlines
ConfTool Abstract Submission System Opens		August 29, 2025
Abstract Submission Deadline		December 19, 2025
Abstract acceptance notification and instructions to authors for manuscript preparation		January 23, 2026
Manuscripts submission deadline		April 17, 2026
Notification to presenting authors of acceptance or rejection of manuscripts		May 15, 2026
Pre-registration for conference ends. Final version of papers must be uploaded at this time		May 31, 2026
Presenting Author Registration (2 Presented Papers Maximum)	$850	May 31, 2026
Student Author Registration (2 Presented Papers Maximum)	$400	May 31, 2026
Non-Author Registration	$950	May 31, 2026
Student Non-Author Registration	$500	May 31, 2026
Conference and IBO Workshop Registration	$1,000	May 31, 2026
System Modeling Short Course Registration	$800	May 31, 2026
Refrigerant Short Course Registration	$800	May 31, 2026
Student Short Course Registration	$400	May 31, 2026

All registration rates will increase by $150 after the deadline date. Every group of 6 attendees from the same employer receive 1 complimentary registration for every 5 paid registrations. Group registration fees are $4,250 before May 31, 2026 and $5,000 starting June 1, 2026.

IMPORTANT INFORMATION

- Conference registration will be available online starting December of 2025 at **chpb.engineering.purdue.edu/herrick-conferences**
- Companies wishing to register using a wire transfer will need to contact Amanda Johnson at john2145@purdue.edu or (765) 494-0874. Note that additional wire transfer fees are included.
- All fees must be paid in U.S. funds and drawn on a U.S. bank. Fees paid in advance but not used will be refunded upon written request full refunds can be granted 45 days prior to the conference. We are not responsible for costs incurred due to cancellation.
- Letters of invitation to obtain your travel visa can be found in ConfTool. Please contact Brian Barrett at herrickconferences@purdue.edu if you require additional documentation for travel.
- For additional registration information, daily schedule, etc. – please visit **chpb.engineering.purdue.edu/herrick-conferences**.
- Continuing Education Units (CEU's) may be available.



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Organizing Committee

General Chair ..... Eckhard A. Groll
Honorary Chair ..... Jim Braun
International Compressor Engineering Conference Co-Chair ..... W. Travis Horton
International Compressor Engineering Conference Co-Chair ..... Riley Barta
International Refrigeration and Air Conditioning Conference Co-Chair ..... Davide Ziviani
International Refrigeration and Air Conditioning Conference Co-Chair ..... Jie Cai
International High Performance Buildings Conference Chair ..... Thanos Tzempelikos
International High Performance Buildings Conference Co-Chair ..... Kevin Kircher

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FOR OVER 50 YEARS

Purdue University has proudly hosted the internationally renowned Herrick Conferences—three premier events that showcase the future of energy, refrigeration, and building technologies. What began in 1972 with the International Compressor Engineering Conference has since grown to include the International Refrigeration and Air Conditioning Conference (added in 1986) and the International High Performance Buildings Conference (added in 2010). Together, these events have become the global stage where groundbreaking research, visionary ideas, and practical innovations are unveiled.

The Herrick Conferences attract top minds from across academia, industry, and government, creating a powerful environment for knowledge exchange and collaboration. Attendees have the unique opportunity to explore technical sessions across all three conferences, tailoring their experience to their interests—whether compressors, sustainable building design, or next-generation refrigeration and air conditioning systems. Just as valuable as the research presented are the networking opportunities: from dynamic social events to one-on-one conversations with thought leaders, the conferences foster relationships that inspire new projects, partnerships, and business opportunities.

Sponsors and participants alike benefit from being part of a community at the forefront of global innovation. Registration includes full access to the conference schedule, published papers, and networking activities, ensuring attendees leave with both knowledge and connections that advance their work. Conducted in English and welcoming an international audience, the Herrick Conferences continue to set the standard for excellence, relevance, and impact in the HVACR and high-performance building industries.

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