

ABOUT THE CONFERENCE

The International Institute of Refrigeration has established a series of Commission B1 Conferences, held every 4 years, to discuss refrigerant thermophysical properties and transfer processes. This conference follows the 2001 Conference in Paderborn, Germany, and the 2005 Conference in Vicenza, Italy.

Increased concerns about climate change place a discussion focus on refrigerants as greenhouse gases and on refrigeration systems as energy users responsible for CO₂ emissions from power plants. In response, the search for new refrigerants continues and new technological solutions are sought. Accurate knowledge of thermophysical properties and in-depth understanding of heat and mass transfer phenomena are essential to accurately model these processes, and optimize refrigeration systems and their components. The conference covers the areas of research that are prerequisites for advancing refrigeration technology.

Academic and industrial contributors are encouraged to submit papers demonstrating novel experimental techniques, improved data analysis, and modeling approaches to thermophysical properties and transfer processes of new refrigerants.

CONFERENCE STRUCTURE

The IIR Conference (June 23-26) is organized in conjunction with the 17th Symposium on Thermophysical Properties (June 21-26, <http://symp17.nist.gov/>). Registration to the IIR Conference will include admission to the technical sessions of the 17th Symposium for the dates that the IIR Conference registration is valid. The official opening of the IIR Conference will take place on June 24th, but the June 23rd Reception for the Touloukian Award Winner (17th Symposium award) will be open for the registered participants of the IIR Conference. Technical sessions on refrigerant properties and the June 25th Conference barbeque/dinner will be held jointly.

CONFERENCE CO-CHAIRS

Piotr A. Domanski NIST, Gaithersburg, Maryland
Mark O. McLinden NIST, Boulder, Colorado

ORGANIZING COMMITTEE

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CONFERENCE SECRETARIAT

(for pre- and post-conference correspondence)

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Conference Website

The most up-to-date information is available online at:
www.IIRBoulder2009.org



Third Conference on

**Thermophysical Properties and
Transfer Processes of Refrigerants**

JUNE 23-26, 2009

BOULDER, COLORADO USA

IIR COMMISSION B1 CONFERENCE

Organized by the
**National Institute of
Standards and Technology (NIST)**
and the
**International Institute of
Refrigeration (IIR)**

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Held jointly with
17th Symposium on Thermophysical Properties
June 21-26, 2009
Organized by NIST and the Committee on
Thermophysical Properties
(a joint committee of ASME and AIChE)

CONFERENCE PROCEEDINGS

Conference proceedings CD will be distributed to participants during registration. The CD will include papers accepted for presentation, provided at least one author has been pre-registered by the deadline for receipt of the final manuscripts. Authors will have the option to submit their papers, or updated versions, to International Journal of Refrigeration; these papers will undergo a regular Journal review.

LANGUAGE

The conference will be conducted in English. All papers must be written and presented in English.

CONFERENCE VENUE

The conference will be held at the University of Colorado. The University is the premier, multidisciplinary university in the state with over 28 000 degree-seeking students in more than 85 academic majors. The faculty includes four Nobel laureates. The main campus is located in the heart of Boulder and comprises 200 buildings on 318 hectares.

The City of Boulder, with a population of 92 000, is located 60 km northwest of Denver, but it has a distinct identity. Boulder is known for extensive parks, greenbelt system, and pedestrian/bicycle-friendly streets. In addition to NIST and the University of Colorado, it is home to other major research centers, including the National Center for Atmospheric Research and the National Oceanic and Atmospheric Administration. Boulder sits at an elevation of 1655 m in the valley formed by Boulder Creek and is relatively flat, but the foothills of the Rocky Mountains rise to more than 2600 m just a few km to the west. Numerous hiking trails start within 2 km of the University. Rocky Mountain National Park, known for its extensive alpine tundra, high mountain lakes, and peaks as high as 4345 m, is 60 km northwest of the city.

ACCOMMODATIONS IN BOULDER

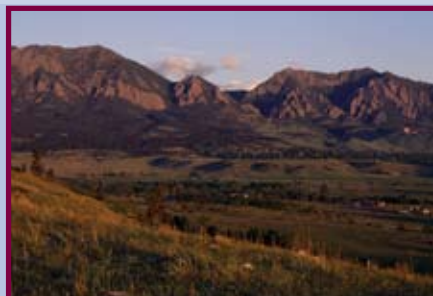
Several hotels are located within walking distance of the conference venue. Attendees staying in hotels need to make their own reservations. Hotel information will be posted on the website as the conference draws near.

Dormitory rooms at the University will also be available as a low-cost housing option. Attendees staying in the dormitory will need to make reservations through the conference. A meal ticket for the University cafeteria will be included in the cost of the dormitory room. Meal tickets will also be available for purchase for those staying in hotels.



TRAVEL TO BOULDER

Boulder is served by Denver International Airport (DEN), which is 65 km from Boulder. Door-to-door airport shuttle service and regional bus service are available. Denver is the 10th busiest airport in the world and is served by every major U.S. airline and several international airlines. Non-stop flights to Denver are available from every major city in the U.S. and several cities in Europe, Canada, and Mexico.



TOPICS

- Measurements and modeling of thermodynamic and transport properties of working fluids
- Heat and mass transfer with boiling and condensation in tubular and minichannel geometries
- Experimental investigation and modeling of two-phase flow, heat transfer enhancements, and heat exchangers
- Micro- and nano- scale effects in heat transfer
- Technologies for refrigerant charge reduction
- Lubricant/refrigerant issues
- Natural and novel refrigerants
- Secondary refrigerants including ice slurries
- Cycle performance, modeling, optimization, and control
- Novel cycles and alternative cooling technologies
- Transfer processes related to absorption and adsorption
- Legislation — regional and international
- Environmental impacts of HVAC&R systems

*** IMPORTANT DATES ***

October 1, 2008	Abstract submission deadline (max. 250 words)
October 31, 2008	Notification to authors of abstract acceptance
February 1, 2009	Manuscripts submitted for review
March 15, 2009	Manuscripts reviewed, comments sent to the authors
April 30, 2009	Final manuscripts submitted <i>Deadline for pre-registration of at least one author</i>
June 23, 2009	Registration opens Reception for the Touloukian Award
June 24, 2009	IIR Conference opening
June 26, 2009	IIR Conference closing