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# THERMOGRAM

October 2021  
Volume LVI Issue 02

## Main Meeting: Impacts of Climate Change and Urbanization on Future Building Performance

### Tech Session: Bipolar Ionization

#### ASHRAE Baltimore October 7th Meeting:

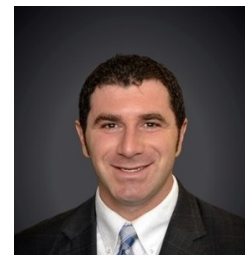
Tech Session:	5:00 pm – 5:45 pm	Dinner:	6:30 pm – 7:00 pm
Networking Hour:	5:30 pm – 6:30 pm	Main Presentation:	7:00 pm – 8:15 pm

#### **Tech Session (*In-Person and Streamed Online!*)** Bipolar Ionization

Over the past year, interest has soared in strategies to improve indoor air quality. We look forward to hearing about the development of this technology and where it stands today.

#### **Speaker: Zach Franz**

Zach Franz is the Regional Sales Manager-Mid-Atlantic for Clean Air Group and AtmosAir Solutions. Zach has served in this role since 2015 as a senior team member for Clean Air Group. Zach has been involved in design for over 15M square feet of space including Commercial Buildings, Healthcare, Professional Sports Facilities, Hospitality and Education. Zach is a graduate of Virginia Tech.



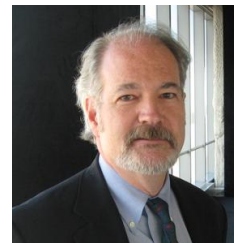
#### **Main Presentation (*In-Person and Streamed Online!*)**

#### Impacts of Climate Change and Urbanization on Future Building Performance

With the increasing interest in climate change driven by human activity, recent research has focused on the impact of climate change or urban heat island on building operation and performance across the world. But this work usually aggregates the energy and peak demand impacts across a broad sector. In a recent study, impacts on the operating performance of an office building were estimated based on climate change and heat island scenarios in 20 regions. This presentation presents the variation and differences among the 20 regions when climate change is introduced. The focus is on changes in comfort conditions, building equipment operation as well as daily patterns of energy performance using prototypical buildings that represent typical, good, and low-energy practices around the world. Other issues such as fuel swapping as heating and cooling ratios change, impacts on environmental emissions, and how low-energy building design incorporating renewables can significantly mitigate any potential climate variation are also presented.

#### **Speaker: Drury B. Crawley, Ph.D., ASHRAE Distinguished Lecturer**

Dru Crawley is Bentley Fellow and Director, Building Performance Research focusing on building performance, zero-energy Buildings, decarbonization, digital twins, smart cities, sustainability, and resilience. He also led development of Bentley's building performance software suite for four years. Before joining Bentley in 2010, Dr. Crawley developed and managed EnergyPlus and the USDOE's Commercial Buildings Initiative (now Better Buildings Initiative and Alliances) promoting creation of net-zero-energy buildings. With more than 40 years of experience in buildings energy efficiency, renewable energy, and sustainability, he has worked in engineering software development, government research and standards development organizations, as well as building design and consulting companies. He received his PhD in Mechanical Engineering from University of Strathclyde in Glasgow, Scotland on the topic of building simulation as a policy tool, and a Bachelor of Architecture from University of Tennessee, and is a registered architect.



### **The October meeting will take place at the Engineers Club. 11 West Mount Vernon Place Baltimore, MD 21201**

*In alignment with the "Green Trends" of ASHRAE, we have eliminated the paper copies of the Membership Roster. An electronic copy is available, upon request.*



## 2021-2022 Chapter Leadership Roster

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### President's Pen

We've officially reached the fall, with the promise of crisper weather, gourd-themed seasonings in everything, and all the associated complexities of shoulder season operations. As we look forward to this new season, it's a great time to reflect on the highlights from our summer. If you haven't had the chance yet, check out (and follow) the [Baltimore Chapter's LinkedIn](#), which features a most excellent photo of the Hawaiian shirts out in force at our Summer Social, updates for all our meetings, and a sample of the catch from Monday's Rockfish Tournament. I had the pleasure of joining some of our members for a great day on the water, and even came away with a fresh rockfish filet for that night's dinner! I'm sure the menu will be great for our return to the Engineer's Club next week, but I'll withhold my hopes for local seafood until our beloved April meeting featuring crab cake night.

Another highlight for this time of year is Hispanic Heritage Month. This annual celebration begins on September 15th, which coincides with the national independence days of Guatemala, Honduras, El Salvador, Nicaragua and Costa Rica, closely followed by Mexico on the 16th, Chile on the 18th, and Belize on the 21st. We look forward to celebrating this month and recognizing contributions to our own industry with a member spotlight from the Diversity in ASHRAE Committee at next week's meeting!

Looking to the end of fall, preparations are proceeding full steam ahead for the return of our Christmas Party on December 3rd! You will find the [Christmas page](#) is live on our website with the event flyer and a link to purchase tickets. Thank you to everyone who is making this possible by driving down the spread of airborne pathogens in our region. In keeping with that goal, I'd like to remind everyone attending next week's meeting in-person that we will be adhering to local requirements and masking in the Engineer's Club except when eating or drinking.

Finally, we look even further into the future as we consider the main topic for our meeting- The Impacts of Climate Change and Urbanization on Future Building Performance. Dr. Crawley is an ASHRAE fellow, distinguished lecturer, and by all accounts an exceptional speaker, so I hope you'll join us either in person or online for our October Meeting! If you have any suggestions for upcoming meeting topics or speakers, please do not hesitate to reach out to our Programs Chair, Nancy Neely, or any of our board members. Thank you for your support!



**Sam Philipp**  
ASHRAE Baltimore Chapter President, 2021-2022



**Meeting Schedule**

Please mark your calendar with the following dates for the 2021 through 2022 Baltimore Chapter meetings. A complete schedule indicating seminar, technical session and main meeting topics will be published in the coming month's Thermogram and is also available on the chapter website, [www.ashrae-balto.org](http://www.ashrae-balto.org).

August 12, 13, & 14, 2021	Chapters Regional Conference	State College, PA
Thursday, September 2, 2021	12:00PM—Main Meeting: Chilled Water Piping Design 05:30PM—Summer Social at Tiki Lee's Dock Bar	Virtual—Go To Meeting Sparrows Point MD
Monday, September 27, 2021	9th Annual Rockfish Tournament	Happy Harbor Marina
Thursday, October 7, 2021 <i>Research Promotion Night</i>	Main Meeting: Impacts of Climate Change and Urbanization on Future Building Performance Tech Session: Bipolar Ionization	ESB
Thursday, November 4, 2021 <i>Membership Promotion Night</i>	Main Meeting: TBD Tech Session: TBD	ESB
Friday, December 3, 2021	71st Annual Christmas Party	Timonium Fairgrounds, 4H Building
Thursday, January 6, 2022	Main Meeting: TBD Tech Session: TBD	ESB
Thursday, February 3, 2022	Refrigeration Tour	TBD
Thursday, March 3, 2022	Main Meeting: TBD Tech Session: TBD	ESB
Thursday, April 7, 2022 <i>Former Presidents' Night Research Promotion</i>	Main Meeting: TBD Tech Session: TBD	ESB
Thursday, May 5, 2022 <i>Student Night</i>	Main Meeting: TBD Tech Session: TBD	ESB
TBD	10th Annual RP Fishing Tournament	TBD
Friday, June 3, 2022	64th Annual Golf Outing	Turf Valley Country Club, Ellicott City, MD

Main Meeting Schedule: 5:30 pm social hour, 6:30 pm dinner, 7:00 pm speaker

Tech Session Schedule: 5:00 - 5:45 pm

Cost: \$35 dinner fee for ASHRAE Members, \$10 for students  
\$10 for Virtual-Only Attendance





The ASHRAE Baltimore Chapter is pleased to continue our local representative directory, BALMER, which is similar to the old MEMRA directory!

## Baltimore Area List of Mechanical Equipment Representatives

In a world that is becoming ever more virtual and remote, the ASHRAE Baltimore Chapter has put together a resource for our members to identify and connect with local representatives. All HVAC & plumbing related businesses are welcome to be listed in the new directory, which will be posted on the Chapter's website for use by local engineers, contractors, and owners.

### Additional Information:

1. In order to have your company represented in the BALMER directory, send an email to [ashtech@ashrae-balto.org](mailto:ashtech@ashrae-balto.org) with the subject "BALMER Directory." We will then gather the required information for the directory (Company Name, Company Website, Representative Contact Information, Manufacturer Product Type, etc).
2. The cost per firm to be listed in the BALMER directory will be \$250 / year. Payments can be made via check to "ASHRAE Baltimore Chapter" or via credit card (applicable fees will apply).

# THE ASHRAE CHRISTMAS PARTY IS BACK ON!

## ASHRAE CHRISTMAS PARTY!

THE 71<sup>st</sup> ANNUAL ASHRAE CHRISTMAS PARTY



**Tickets are first come, first serve!**

**Tickets are \$55.00 per person /  
Table of 10 \$550**

**Credit card or check payments  
are accepted. Please purchase  
tickets online [here!](#)**

**For check payments, please  
choose "Bypass Payment" on the  
website and send checks to:**

**Whitman, Requardt & Associates, LLP  
Attn: Terry Schroeder  
801 S Caroline Street  
Baltimore, MD 21231**

### **Event Details:**

- **Date: December 3, 2021**
- **Event Time: 5:00 P.M. until 9:00 P.M**
- **Place: 4H Building, Timonium Fairground, Maryland**

# THANK YOU TO OUR 2021-2022 ASHRAE BALTIMORE MEETING SPONSORS!

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**TO: BALTIMORE CHAPTER, ASHRAE**  
**EMAIL: [reservations@ashrae-balto.org](mailto:reservations@ashrae-balto.org)**



**YES! I will attend the Baltimore Chapter Meeting on Thursday, October 7th.**

Reservations: We are encouraging members to make reservations on our website, [www.ashrae-balto.org](http://www.ashrae-balto.org).

If you are planning to attend, please RSVP to the website or write to [reservations@ashrae-balto.org](mailto:reservations@ashrae-balto.org) indicating name(s) and membership status (member or guest) Please be sure to also include "ASHRAE Meeting" in the subject matter line.

Deadline for (in person) reservations and cancellations: Tuesday, October 5th - NOON  
Reservations made after the deadline will be placed on a waiting list.