



# JOIN US!

**April 21 – 22, 2022**

**Baltimore, Maryland, USA**

**Four Seasons Hotel Baltimore**

**Registration cost: US\$500**

The sun is rising on the future of heat transfer in environmental technologies. At this important time in our industry, HTRI looks forward to hosting the Horizons Symposium, with the majestic Inner Harbor as our backdrop.

Horizons will facilitate research and development for industry, academia, and government research staff to network, discuss problems, and propose solutions for heat transfer in environmental technology applications.

## Presentations and Panel Sessions will Focus On



### **WATER QUALITY**

Desalination, wastewater treatment, zero liquid discharge, water fouling



### **AIR QUALITY**

Carbon capture, sulfur and NO<sub>x</sub> reduction, indoor air quality



### **RENEWABLE ENERGY**

Geothermal, direct solar, thermal, fuel cells, Li-ion battery energy storage

## Featuring Key Note Speakers



**THOMAS G. LESTINA**

**HTRI**

**Troubleshooting Thermal Performance of Environmental Applications**



**REINHARD RADERMACHER**

**University of Maryland**

**Mathematically Rigorous Optimization of Heat Exchangers and the Future of Heat Pumps**

**HTRI**<sup>®</sup>

# Symposium Topics

With more to come!



## Cooling Water Treatment — Lessons Learned

*Michael Lyon,  
DuPont*

## Environmental Impact of Warm Water Discharge from Wastewater Treatment Plants

*John Poppe,  
Kitsap Public Utility District*



## Gas Turbine Operation Improvement with Multi-function Catalyst

*Dan Johnson,  
CORMETECH Inc.*

## Cold Water for Plants in the Desert: Heat Rejection for Water-starved Locations

*T.J. Paskach,  
Frontline BioEnergy LLC*



## Heat Transfer Technologies for Combined Heat and Power Applications

*Patricia Irving,  
InnovaTek Inc.*

## Improving Thermal Management for Large Li-ion Energy Storage Systems

*Chris Boyer,  
AES Distributed Energy*

## Four Seasons Hotel Baltimore

Perched at the edge of the Harbor East waterfront, the Four Seasons Hotel Baltimore is located about 20 minutes from Baltimore Washington International Airport (BWI) and is an easy walk to restaurants and attractions, including the National Aquarium and Camden Yards.

**200 International Drive  
Baltimore, Maryland 21202, USA  
Front Desk: +1.410.576.5800**

Rooms at the Four Seasons Hotel Baltimore are limited to 125 people. Register early to secure your room!

For additional details on the venue,  
visit [horizons.htri.net](https://horizons.htri.net).



## Symposium Scholarship Opportunities

Scholarship opportunities are available to current graduate students and postdocs to defray the cost of attending the Horizons Symposium. Up to three scholarships—providing complimentary symposium registration, two nights' accommodations at the symposium hotel, and a US\$500 travel stipend—will be awarded. Applicants must submit proof of enrollment or postdoctoral

position, along with a one-page abstract detailing their current research activities and how attending the Horizons Symposium will further their education and career objectives. Submissions will undergo peer review by the Horizons Symposium Steering Committee, and notifications of selection/non-selection will be sent in December 22, 2021.



**VISIT [HORIZONS.HTRI.NET](https://horizons.htri.net) FOR MORE INFORMATION.**