2021-2022 CASTing

CAST 2021 Division Awards

We were all so excited to see each other again at the in-person 2021 CAST Awards Banquet. The event was held on Tuesday November 9th 2021 in Boston. Awards were presented to all recipients listed below.

Professor Claire Adjiman from Imperial College London was the recipient of the Computing in Chemical Engineering Award 2021. She gave her award lecture online on November 18th during the Virtual CAST Banquet that was attended by colleagues all over the world.
Her lecture was recorded and is available here.

Professor **Mario Eden** from Auburn University was recognized for his contributions as CAST Division Chair with the **2021 Excellence and Service to Division Award**.

Other awards that were recognized were:

- Computing Practice Award: **Salvador Garcia, Eli Lilly and Company**
- David Himmelblau Award for Innovations in Computer-Based Chemical Engineering Education: **Thomas Adams, McMaster University**
- CAST Outstanding Young Researcher Award: **Faruque Hasan, Texas A&M University**
- W. David Smith Jr. Graduate Publication Award: **Dominik Bongartz, RWTH Aachen University**

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CAST 2021 Presentation and Poster Awards

Poster Awards 2021:

Undergraduate Poster Awards:

- 1st Place: **Kareem Adbelmaqsoud**, University of Delaware (REU), �Optimization of Fructose Dehydration over Zeolite Catalysis using Machine learning�
- 2nd Place: **Nicholas Snyder**, UCLA, �Modeling Electrode Geometry Changes in Zinc-Based Batteries Using COMSOL Multiphysics�
- 3rd Place: **Shining Wang**, University of Virginia, �Prediction of Theoretical Carbide Crystal Structures Using Computational Modeling�

Graduate/Professionals Poster Awards (Directors Award 2021):

- 1st Place (shared): **Travis Emery,** Physical Sciences, Inc �Modeling, Engineering & Integration of a Smart Moisture Absorbing Foam into a Man-Portable Atmospheric Water Extraction Device�
- 1st Place (shared): **Georgios Psarellis,** Johns Hopkins U �Learning Partial Differential Equations from Multiscale or Experimental Data: A Showcase on Bacterial Chemotaxis�

Presentation Awards 2021:

The 2021 CAST Presentation Winners were:

1st Place: **Daniel Laky,** Purdue University, "Simulation-Optimization Framework for Grey-Box Optimization Using Pharmapy"

2nd Place: **William Bradley**, Georgia Tech, "Dynamic Trajectory Optimization Via Dynamic Surrogate Modeling"

3rd Place: **Can Li**, Carnegie Mellon U, "On Representative Day Selection for Capacity Expansion Planning of Power Systems Under Extreme Events"

The following students were invited to present their work in the special session for 2021 Student Presentation Finalists. During the 2021 meeting, for the first time, the students presented twice (virtually and in-person). This session has admittedly become one of the highlights of the conference!

- Moo Sun Hong, MIT
- Vipul Mann, Columbia U

- Can Li, Carnegie Mellon U
- Jared O�Leary, UC Berkley
- Hua Wang, Carnegie Mellon U
- Daniel Laky, Purdue U
- Elvis Eugene, Notre Dame
- William Bradley, Georgia Tech

CAST Young Professionals News

CAST Academic Career Panels

Last summer, approximately thirty CAST Young Professionals joined professors Ashlee Ford Verspyt, Mario Eden, Martha Grover, Juergen Hahn, Selen Cremaschi, and **Alex Dowling (YP Liaison leading this effort)** for a virtual panel discussion on academic careers. Topics included (1) what are the day-to-day responsibilities of a professor, (2) what is the application and interview process, and (3) how to thrive when starting an independent research and teaching career. Stay tuned for information about a similar panel this summer.

CAST Young Professionals Go Bowling

During the Fall 2021 AIChE Annual Meeting in Boston, approximately twenty-five CAST young professionals got together for a bowling social event. Thank you to CAST for supporting the event! We are busy planning a similar social event this year in Arizona at the Fall 2022 Annual Meeting.

For more information about the AIChE-YP community, please visit this link
For more information about CAST and how to become a member, please visit our website.

Elected Positions

The following 2024 **Programming Coordinators** have been elected by the CAST community:

Area 10A: David Miller

Area 10B: Jesus Flores-Cerillo
Area 10C: Qi Zhang
Area 10D: Joel Paulson
Area 10E: Fengqi You

Due to a tie for 10A, the election committee decided that **Monica Zanfir** will serve as coordinator in 2025. Thank you for the participation in the elections!

The following **Executive committee members** were also elected for the following positions:

- 2022 Second Vice Chair: Prodromos Daoutidis, U of Minnesota
- 2022-2024 Director: Ashlee N. Ford Versypt, U at Buffalo
- 2022-2024 Director: Faruque Hasan, Texas A&M U
- 2022-2023 Secretary/Treasurer: John Siirola, Sandia National Labs

Welcoming new CAST Social Media Chair

Dr. Maria Papathanasiou (Imperial College London) will be the new CAST Social Media Chair starting 2022. Maria is looking forward to promoting CAST news and events through our Twitter, Linkedin, and Facebook pages (see links at the end of this message), so stay tuned!

Sincere thank you to our previous social media chair, **Dr. Ashlee V. Ford Versypt** (U at Buffalo), for her dedication and service to the CAST community.

Process Systems Engineering Webinars

Visit https://apmonitor.com/wiki/index.php/Main/ApplicationWebinars to find many informative webinars on topics including modeling, control, optimization, data-science & machine learning, and more. Recent entries include talks from CAST Award

winners. You can also find a link for future speaker nominations.

We look forward to seeing all of you in future events, including the [2022 Annual AIChE Conference in Phoenix, Arizona](#).

Find Out More about CAST