



CAST

Computing & Systems Technology Division
An AIChE Community

2019 Division Awards

Mario R. Eden
2nd Vice Chair

Orlando, FL
November 12, 2019

2019 UNDERGRADUATE POSTER AWARDS

Theodore Champ

University of Colorado – Boulder
1st Place

Colette Schissel

Cornell University
2nd Place

2019 STUDENT PRESENTATION FINALISTS

Zhe Wu

University of California, Los Angeles

Abhinav Narasingam

Texas A&M University

Iman Hajizadeh

Illinois Institute of Technology

Wentao Tang

University of Minnesota

Qi Chen

Carnegie Mellon University

Salih E. Demirel

Texas A&M University

Pascal Schäfer

RWTH Aachen University

Simon Olofsson

Imperial College London

2019 STUDENT PRESENTATION AWARD

*Recognizes a student for an outstanding oral presentation at the
2019 AIChE Annual Meeting – 1st Place*

Wentao Tang

University of Minnesota

Data-Driven Dissipativity-Based Control

2019 STUDENT PRESENTATION AWARD

*Recognizes a student for an outstanding oral presentation at the
2019 AIChE Annual Meeting – Runner Up*

Qi Chen

Carnegie Mellon University

Pyosyn: A Collaborative Ecosystem to Advance Process Design

2019 DIRECTORS' AWARD

*Recognizes a student for an outstanding poster presented at the
2019 AIChE Annual Meeting*

Andrew J. Radcliffe

Purdue University

*Development of an Image Analysis Tool for High-speed Imaging Data in a
Dropwise Additive Manufacturing Process*

2018 STUDENT PRESENTATION AWARD

*Recognizes a student for an outstanding oral presentation at the
2018 AIChE Annual Meeting – 1st Place*

Andrew Allman

University of Minnesota

Decode: Detection of Communities for Optimization Decomposition

2018 STUDENT PRESENTATION AWARD

*Recognizes a student for an outstanding oral presentation at the
2018 AIChE Annual Meeting – Runner Up*

Calvin Tsay

University of Texas at Austin

*Optimal Demand Response Operation of an Industrial Air Separation Unit Using
Data-Driven, Scheduling-Relevant Dynamic Models*

2018 DIRECTORS' AWARD

*Recognizes a student for an outstanding poster presented at the
2018 AIChE Annual Meeting – Joint 1st Place*

Nastasia Allred

Tennessee Technological University

*Modeling Heat Transfer Using an Integral Equation Approach Via Green's
Function: Application to Cancerous Tumor Undergoing Hyperthermia Treatment*

2018 DIRECTORS' AWARD

*Recognizes a student for an outstanding poster presented at the
2018 AIChE Annual Meeting – Joint 1st Place*

Weike Sun

Massachusetts Institute of Technology

*Review and Comparative Study of
Nonlinear PCA Fault Detection Methods*

EXCELLENCE AND SERVICE TO DIVISION

Appreciation of the 2019 CAST Division Chair

Christos Maravelias

University of Wisconsin - Madison

W. DAVID SMITH JR. GRADUATE PUBLICATION

Recognizes an outstanding publication in chemical engineering computing and systems technology while graduate or undergraduate student

Sponsored by Process Systems Enterprise Ltd

Qi Zhang

University of Minnesota

On the Relation between Flexibility Analysis and Robust Optimization for Linear Systems, *AIChE Journal*, **62**:3109-3123, 2016.

DAVID HIMMELBLAU AWARD

Recognizes new and novel contributions, of an individual or a group, to the use of computers in chemical engineering education

Sponsored by CACHE Corporation

William E. Schiesser

Lehigh University

For pioneering the use of readily accessible numerical methods for solutions of ODE/PDE/DAE models and their dissemination through books and software routines for industrial, chemical, and biomedical engineering undergraduate and graduate education



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OUTSTANDING YOUNG RESEARCHER

Recognizes an individual, under the age of 40, for outstanding contributions to the chemical engineering computing and systems technology literature

Sponsored by Air Products and Chemicals Inc.

Victor Zavala

University of Wisconsin - Madison

For contributions to theory, algorithms, and applications of large-scale optimization

COMPUTING PRACTICE

Recognizes an individual for an outstanding contribution to the practice or application of chemical engineering computing and systems technology

Sponsored by Aspen Technology and ExxonMobil Research & Engineering Company

Constantinos C. Pantelides

Process Systems Enterprise Limited

For pioneering work developing advanced modeling software tools (SPEEDUP and gPROMS) and transforming Process Systems Enterprise Limited (PSE) into a process simulation market leader

COMPUTING IN CHEMICAL ENGINEERING

*Recognizes an individual for outstanding contributions to chemical engineering
computing and systems technology*

Sponsored by The Dow Chemical Company

Sigurd Skogestad

Norwegian University of Science & Technology

*For contributions to the theory and application of robust control, plant-wide and
self-optimizing control, and PID controller tuning*