# The 3rd Industry/University Joint International Workshop on Data-Center Automation, Analytics, and Control (DAAC)

**Session Chairs:** Yong Chen, Dong Dai, Alan Sill

Big Data Collaborative Environments Data Analytics Data Management Datacenter

Friday, 22 November 2019, 8:30am - 12pm
**Location:** 501-502

**Description:** The Industry/University Joint International Workshop on Data-Center Automation, Analytics, and Control (DAAC) will be hosted at the 2019 ACM/IEEE Supercomputing Conference (SC19). This workshop proposal is an outcome of intensive discussions from academia, industry, and national laboratory researchers that led to successful previous instances hosted at SC'18 and UCC'17. Looking at the last year's attendance at SC'18, DAAC has attracted up to ~80 attendees and had 50.6 attendees on average. DAAC'18 featured an industry panel, 3 invited talks from both academia and industry, and 10 paper talks from academia, national labs, and industry, selected through a rigorous review process (at least three reviews for each paper). DAAC'17 featured three invited speakers from industry and a panel of five experts and different stakeholders in addition to presentations from peer-reviewed papers.

The DAAC workshop at SC is a unique event that promotes collaboration among academia, industry, and national labs and remains jointly organized by academic and industry researchers. The objective is to promote and stimulate community's interactions to address some of most critical challenges in automation, analytics, and control specifically aimed for the needs of large-scale data centers in high-performance/high-end computing. DAAC'19 provides a valuable addition to main conference programs. Taking advantage of the opportune match to the SC19 audience, DAAC'19 expects to attract a larger number of attendees from academia, industry, and government labs who are interested in data center automated management, operation, and maintenance.

## Presentations

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| 8:30am - 8:45am | **The 3rd Industry/University Joint International Workshop on Data-Center Automation, Analytics, and Control (DAAC)** <br> **Dong Dai, Alan Sill, Dmitry Duplyakin** |
| 8:45am - 9:00am | **CloudTraceViz: A Visualization Tool for Tracing Dynamic Usage of Cloud Computing Resources** <br> **Vinh Nguyen, Tommy Dang** |
| 9:00am - 9:15am | **MetricQ: A Scalable Infrastructure for Processing High-Resolution Time Series Data** <br> **Thomas Ilsche, Daniel Hackenberg, Robert Schöne, Mario Bielert, Franz Höpfner, Wolfgang E. Nagel** |
| 9:15am - 9:30am | **MELA: A Visual Analytics Tool for Studying Multifidelity HPC System Logs** <br> **Fnu Shilpika, Bethany Lusch, Murali EmaniVenkatram Vishwanath, Michael E. Papka, Kwan-Liu Ma** |
| 9:30am - 9:45am | **Job Outcome Prediction via Text Log Analysis** <br> **Alexandra DeLucia, Elisabeth Moore** |
| 9:45am - 10:00am | **HiperJobViz: Visualizing Resource Allocations in High-Performance Computing Center via Multivariate Health-Status Data** <br> **Tommy Dang, Ngan Nguyen, Jon Hass** |
| 10:00am - 10:30am | **DAAC Morning Break** |
| 10:30am - 10:45am | **Multi-Source Cooling Control Algorithm** <br> **Luca Bortot, Walter Nardelli, Peter Seto** |
| 10:45am - 11:00am | **HyperOXN: A Novel Optical Cross-Connect Architecture for Data Centers** <br> **Timothy Yuan** |
| 11:00am - 12:00pm | **DAAC Industrial/University Joint Panel Discussion** |