



CIE53 Program at a Glance

20-23 October 2026 | Khalifa University, Abu Dhabi, UAE

Live schedule from cie2026.science

Time	Day 1 Tue, 20 Oct	Day 2 Wed, 21 Oct	Day 3 Thu, 22 Oct	Day 4 Fri, 23 Oct
08:00	Registration 08:00-09:00	Registration	Registration	Registration
08:30		Keynote Speech 3 08:30-09:15	Keynote Speech 5 08:30-09:15	Keynote Speech 6 08:30-09:15
09:00	Opening Ceremony	Short Break	Short Break	Short Break
09:30	Keynote Speech 1 09:30-10:15	Meet the Editors Panel 09:30-10:15	Parallel Technical Sessions V 09:30-11:00	Parallel Technical Sessions VII 09:30-11:00
10:00	Coffee Break			
10:30	Parallel Technical Sessions I 10:45-12:15	Parallel Technical Sessions III 10:45-12:15		
11:00			Doctoral Student Forum 11:30-12:15	Closing Ceremony 11:30-12:15
11:30			Lunch 12:15-13:30	Lunch 12:15-13:30
12:00				
12:30	Keynote Speech 2 13:30-14:15	Keynote Speech 4 13:30-14:15	Industry Talk 13:30-14:15	Optional Industrial Visits 13:30-17:30
13:00				
13:30	Parallel Technical Sessions II 14:30-16:00	Parallel Technical Sessions IV 14:30-16:00	Parallel Technical Sessions VI 14:30-16:00	
14:00				
14:30			Coffee Break	
15:00			Poster Session 16:30-18:15	
15:30				
16:00				
16:30				
17:00				
17:30				
18:00			Transfer to Gala Dinner Location 18:15-19:00	
18:30			Gala Dinner & Conference Awards 19:00-22:00	
19:00				
19:30				
20:00				
20:30				
21:00				
21:30				

SUPPORTERS



Full Schedule

Session times, rooms, speakers, and accepted talks from the live conference database.

Day 1 | Tuesday, 20 October 2026

08:00-09:00

Registration

Room: Khalifa University Auditorium

09:00-09:30

Opening Ceremony

09:30-10:15

Keynote Speech 1

10:15-10:45

Coffee Break

10:45-12:15

Parallel Technical Sessions I

12:15-13:30

Lunch

13:30-14:15

Keynote Speech 2

14:15-14:30

Short Break

14:30-16:00

Parallel Technical Sessions II

Day 2 | Wednesday, 21 October 2026

08:00-08:30

Registration

08:30-09:15

Keynote Speech 3

09:15-09:30

Short Break

09:30-10:15

Meet the Editors Panel

10:15-10:45

Coffee Break

10:45-12:15

Parallel Technical Sessions III

12:15-13:30**Lunch****13:30-14:15****Keynote Speech 4****14:15-14:30****Short Break****14:30-16:00****Parallel Technical Sessions IV****Day 3 | Thursday, 22 October 2026****08:00-08:30****Registration****08:30-09:15****Keynote Speech 5****09:15-09:30****Short Break****09:30-11:00****Parallel Technical Sessions V****11:00-11:30****Coffee Break****11:30-12:15****Doctoral Student Forum****12:15-13:30****Lunch****13:30-14:15****Industry Talk****14:15-14:30****Short Break****14:30-16:00****Parallel Technical Sessions VI****16:00-16:30****Coffee Break****16:30-18:15****Poster Session****18:15-19:00****Transfer to Gala Dinner Location****19:00-22:00****Gala Dinner & Conference Awards**

Day 4 | Friday, 23 October 2026**08:00-08:30****Registration****08:30-09:15****Keynote Speech 6****09:15-09:30****Short Break****09:30-11:00****Parallel Technical Sessions VII****11:00-11:30****Coffee Break****11:30-12:15****Closing Ceremony****12:15-13:30****Lunch****13:30-17:30****Optional Industrial Visits**

Detailed Program

Session information, talk abstracts, authors, affiliations, and invited-speaker biographies.

Keynote and Invited Talks

KEYNOTE

The HPC-AI Convergence: Accelerating Innovation in the Exponential Age

Dr. Horst D. Simon

ADIA Lab, Abu Dhabi

ABSTRACT

High-performance computing (HPC) and artificial intelligence (AI) are no longer separate technological domains. They have converged into a mutually reinforcing ecosystem that drives exponential progress. Modern AI depends fundamentally on HPC architectures, parallelism, and system-scale optimization. At the same time, traditional HPC applications increasingly integrate machine learning and AI-driven models to enhance prediction, accuracy, and efficiency. This convergence is reshaping both fields and accelerating innovation across science, industry, and the digital economy.

This presentation traces the evolution of HPC from its origins in large-scale scientific simulation to its central role in enabling today's AI revolution. It highlights how advances in semiconductors, large-scale data infrastructure, and algorithmic innovation have created a powerful feedback loop that fuels rapid capability growth. Landmark efforts such as the U.S. Exascale Computing Project and global benchmarking through the TOP500 reflect the extraordinary scaling required for modern AI workloads.

As computing demand grows at an exponential pace, sustainability and energy efficiency have become essential design considerations. Future progress will depend on novel accelerators, energy-aware architectures, hybrid cloud/HPC environments, and deeper co-design of hardware, software, and algorithms.

In the Exponential Age, the fusion of HPC and AI forms the computational backbone for scientific discovery, industrial transformation, and emerging digital economies. Sustained investment in this converged ecosystem is therefore imperative to shape and power the next generation of technological breakthroughs.

SPEAKER BIOGRAPHY

Dr. Horst D. Simon is an internationally recognized expert in high-performance computing and computational science, with over four decades of experience in parallel algorithms and large-scale numerical methods. After completing his Ph.D. in Mathematics at UC Berkeley, he held leadership roles across academia (Stony Brook, UC Berkeley), industry (Boeing, SGI), and national research labs (NASA Ames, Lawrence Berkeley Lab. At Berkeley Lab, he directed NERSC and served as Deputy Lab Director, earning two prestigious Gordon Bell Prizes and co-editing the biannual TOP500 list of supercomputers. Since 2023, Dr. Simon has been the founding Director of ADIA Lab in Abu Dhabi, spearheading cutting-edge research in computational and data science. He continues to advance scalable algorithms that address complex scientific and societal challenges.

KEYNOTE

Harnessing the Potential of Operations Research to Optimize Health Policy and Medical Decisions: Lessons from Cancer Screening

Prof. Dr. Oguzhan Alagoz

University of Wisconsin-Madison, USA

ABSTRACT

TBA

SPEAKER BIOGRAPHY

Oguzhan Alagoz is Procter & Gamble Bascom Professor of Industrial and Systems Engineering and Population Health Sciences at the University of Wisconsin-Madison. His research interests include stochastic optimization, medical decision making, completely and partially observable Markov decision processes, simulation, risk-prediction modeling, and health technology assessment. He served as a member of ISPOR-SMDM Modeling Good Research Practices Task Force which developed recommendations for good modeling practices in state-transition modeling for the evaluation of health care decisions in 2012. He is also co-leading the University of Wisconsin Breast Cancer Simulation Model, a member of the National Cancer Institute's Cancer Intervention and Surveillance Modeling Network (CISNET), that was used to inform national breast cancer

screening guidelines in the US in 2016 and 2024. He is currently serving as an associate editor for Operations Research. He previously served as the editor-in-chief of IIE Transactions on Healthcare Systems Engineering, the flagship journal of IIE in the area of healthcare systems engineering and on the editorial board of Medical Decision Making and IIE Transactions. He is an elected fellow of IIE. He published over 110 refereed journal articles throughout his career. His research has been recognized with numerous awards, including the IIE David F. Baker Distinguished Research Award, the premier research award from IIE, a CAREER Award from the National Science Foundation, the IIE Outstanding Young Industrial Engineer in Education Award, and several Best Paper Awards from INFORMS.

KEYNOTE

Circular Intelligence - Business models, data-driven optimization, and coordination

Prof. Dr. Stefan Minner

TUM School of Management, Technical University of Munich

ABSTRACT

Merging two popular streams of industry challenges and their research areas, artificial intelligence and circular economy, brings new opportunities for production economics. The additional complexity when moving from linear to circular business models, the multi-sourcing nature of repair, refurbish, and remanufacturing strategies, and the increased variability and uncertainty in circular supply chains require adjustments of traditional stochastic and data-driven decision models, and can use artificial intelligence for complexity reduction, advanced learning, and automation of decision-making. We present different data-driven prediction and prescription models and respective solution algorithms to support circular intelligence.

SPEAKER BIOGRAPHY

Stefan Minner is a Full Professor for Logistics and Supply Chain Management at the School of Management, Technical University of Munich (TUM) and a core-member of the Munich Data Science Institute (MDSI). Currently, he is the acting Vice Dean of Research and Innovation at TUM School of Management. His research interests using methods of operations research, artificial intelligence and machine learning are in global supply chain design, transportation optimization and inventory management. His work was published in many peer-reviewed journals, including Management Science, Manufacturing & Service Operations Management, Operations Research, Production and Operations Management, Transportation Science, Transportation Research Part B, and European Journal of Operational Research. He serves on several editorial boards of logistics and operations research journals. Currently, Stefan Minner is the Editor-in-Chief of the International Journal of Production Economics. Stefan Minner is a fellow of the International Society for Inventory Research (ISIR) and the International Foundation of Production Research (IFPR). He received the PhD supervisory award at TUM School of Management in 2024 and the Science Award for his lifetime achievements by the German Operations Research Society in 2025.

KEYNOTE

If Machines Exceed Us: Operations Research and Analytics at an Inflection Point

Prof. Dr. Tinglong Dai

Johns Hopkins Carey Business School, USA

ABSTRACT

Artificial intelligence is changing not only the tools of operations research and analytics, but the nature of the problems we take to be solvable. Generative AI, for all its power, does not come with an internal representation of rules, constraints, or risk. Operations research and analytics supply what is missing: the discipline that turns intelligence into decision.

In this talk, I argue that as AI becomes more autonomous, our field becomes more—not less—essential. OR and analytics provide explicit objectives, enforceable constraints, and verifiable guarantees that generative models alone cannot provide. I will also discuss how rising autonomy shifts our work from optimizing decisions to designing decision-making systems, coordinating increasingly agentic AI systems, and contributing to the safety of advanced AI systems, including the long-run challenge of artificial superintelligence.

SPEAKER BIOGRAPHY

Dai is the Bernard T. Ferrari Professor at the Johns Hopkins Carey Business School. He also holds faculty appointments at the Johns Hopkins Data Science and AI Institute and the School of Nursing. He is a member and faculty chair of the Johns Hopkins University Council and serves on the leadership team of the Hopkins Business of Health Initiative. He co-leads the Bloomberg Distinguished Professorship Cluster on Medical Artificial Intelligence.

A renowned expert in AI, supply chains, and healthcare, Professor Dai has been quoted hundreds of times in the media, including CNN, New York Times, NPR, Wall Street Journal, and Washington Post, and has appeared on BBC News, CNBC, and PBS. In 2021, Poets & Quants named him one of the World's Best 40 Under 40 Business School Professors.

His research spans healthcare operations, human-AI interaction, global supply chains, and the marketing-operations interface. His work has been published in leading journals such as Management Science, M&SOM, Marketing Science, Operations Research, Journal of Marketing Research, NEJM AI, and npj Digital Medicine.

He serves as Associate Editor for Management Science, M&SOM, npj Digital Medicine, Service Science , Health Care Management Science, and Naval Research Logistics; sits on the Editorial Board of Marketing Science; and is Senior Editor for the INFORMS Journal on Data Science and Production and Operations Management. In 2023, he was elected Vice President of Marketing, Communications, and Outreach for INFORMS. He co-edited the Handbook of Healthcare Analytics (Wiley, 2018), and currently co-eds AI in Supply Chains: Perspectives from Global Thought Leaders (Springer, 2025). He joined Carey in 2013 after earning a PhD in Operations Management and Robotics from Carnegie Mellon University.