

SC22 HPC ACCELERATES

SC22

2022 Chair
Candace Culhane
Dallas, TX



11,830 Attendees



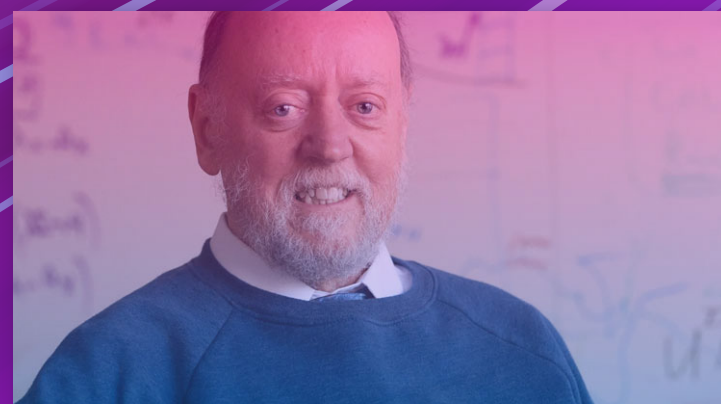
A Return to In-Person

After two years of virtual and hybrid events, SC is delighted to see the vast majority of the HPC community attend SC in person.



Digital Experience

SC22 launches its proprietary remote participation platform, the Digital Experience. It serves 1,500 remote attendees, with access included for all in-person registrations.



ACM A.M. Turing Award Lecture

Jack Dongarra chooses SC22 as the location for delivering his lecture, replacing the traditional Keynote at SC.



Students@SC

Preparing students and those early in their careers, Students@SC offers a robust program including Student Volunteers, the Student Cluster Competition, IndySCC, HPC Immersion, Guided Interest Groups, and more.

2022

Top Ten Supercomputers (Via TOP500 List, November 2022)

Frontier	Sierra
Fugaku	Sunlight TaihuLight
LUMI	Perlmutter
Leonardo	Selene
Summit	Tianhe-2A

Test of Time Award

SC05 Paper: A Power-Aware Run-Time System for High-Performance Computing
Authors: Chung-hsing Hsu, Wuchun Feng

Gordon Bell Prize

Pushing the Frontier in the Design of Laser-Based Electron Accelerators with Groundbreaking Mesh-Refined Particle-In-Cell Simulations on Exascale-Class Supercomputers

Authors: Luca Fedeli, Thomas Clark, Neil Zaim, Henri Vincenti, Axel Huebl, Kevin Gott, Remi Lehe, Andrew Myers, Weiqun Zhang, Jean-Luc Vay, Conrad Hillairet, Stephan Jaure, Adrien Leblanc, Christelle Piechurski, Mitsuhsa Sato

ACM Gordon Bell Special Prize for High Performance Computing-Based COVID-19 Research

GenSLMs: Genome-Scale Language Models Reveal SARS-CoV-2 Evolutionary Dynamics

Authors: Maxim Zvyagin, Alexander Brace, Kyle Hippe, Yuntian Deng, Bin Zhang, Cindy Orozco Bohorquez, Austin Clyde, Bharat Kale, Danilo Perez-Rivera, Heng Ma, Carla M. Mann, Michael Irvin, J. Gregory Pauloski, Logan Ward, Valerie Hayot, Murali Emani, Sam Foreman, Zhen Xie, Diangen Lin, Maulik Shukla, Weili Nie, Josh Romero, Christian Dallago, Arash Vahdat, Chaowei Xiao, Thomas Gibbs, Ian Foster, James J. Davis, Michael E. Papka, Thomas Brettin, Rick Stevens, Anima Anandkumar, Venkatram Vishwanath, Arvind Ramanathan

Best Paper Award

ProbGraph: High-Performance and High-Accuracy Graph Mining with Probabilistic Set Representations

Authors: Maciej Besta, Cesare Miglioli, Paolo Sylos Labini, Jakub Tětek, Patrick Iff, Raghavendra Kanakagiri, Saleh Ashkboos, Kacper Janda, Michal Podstawski, Grzegorz Kwasniewski, Niels Gleinig, Flavio Vella, Onur Mutlu, Torsten Hoefler

Plenary Sessions

ACM A.M. Turing Award Lecture

Speaker: Jack Dongarra

HPC Accelerates Plenary: The Many Dimensions of HPC Acceleration

Moderator: Addison Snell

Panelists: Jim Cherry, Shubho Sengupta, Georgia (Gina) Tourassi

SCinet Network Architecture

More than 175 volunteers representing 80 companies and organizations planned, built, and operated SCinet.

- 37 miles of fiber optic cable installed
- 5.01 terabits per second of wide area network capacity delivered
- WiFi 6E delivered throughout the convention center for the first time