SC24 HPC CREATES

SC2024

2024 Chair
Philip C. Roth
Atlanta, GA

SC24
Atlanta, GA | hpc creates.

18,104 Attendees

First SC in Atlanta

After planning to be in Atlanta for SC20 and then pivoting to a virtual conference, the HPC community rose to the occasion and gathered for the largest attendance in SC Conference history.

494 Exhibitors

Fueled by a growing industry, the continuing return to in-person events, and robust interest in artificial intelligence and quantum computing, a record number of exhibitors joined SC in Atlanta.

Art of HPC

The Scientific Visualization & Data Analytics Showcase transformed into a new poster track, Art of HPC, which featured visualizations and also included HPC-related artworks. Twenty-nine submissions were accepted.

HPC Around the World

Located in the International Lounge of the Georgia World Congress Center, HPC Around the World showcased many of the participants in the HPC Illuminations Pavilion. Attendees were invited to add their location to a large map of the world.

2024

Top Ten Supercomputers (Via TOP500 List, November 2024)

El Capitan	Fugaku
Frontier	Alps
Aurora	LUMI
Eagle	Leonardo
HPC6	Tuolumne

Test of Time Award
GPU Cluster for High Performance Computing

Authors: Zhe Fan, Feng Qiu, Arie Kaufman, Suzanne Yoakum-Stover

Gordon Bell Prize
Breaking the Million-Electron and 1 EFLOP/s Barriers: Biomolecular-Scale Ab Initio Molecular Dynamic Using MP2 Potentials

Authors: Ryan Stocks, Jorge L. Galvez Vallejo, Fiona C.Y. Yu, Calum Snowdon, Elise Palethorpe, Jakub Kurzak, Dmytro Bykov, Giuseppe M.J. Barca

ACM Gordon Bell Prize for Climate Modelling
Boosting Earth System Model Outputs and Saving PetaBytes in Their Storage Using Exascale Climate Emulators

Authors: Sameh Abdulah, Marc G. Genton, David E. Keyes, Zubair Khalid, Hatem Ltaief, Yan Song, Greorgiy L. Stenchikov, Ying Sun, Allison H. Baker, George Bosilca, Qinglei Cao, Stefano Castruccio

Best Paper Award
LLAMP: Assessing Network Latency Tolerance of HPC Applications with Linear Programming

Authors: Siyuan Shen, Langwen Huang, Marcin Chrapek, Timo Schneider, Jai Dayal, Manisha Gajbe, Robert Wisniewski, Torsten Hoefler

Plenary Sessions
Keynote: NASA's Vision for High Impact Science and Exploration
Speaker: Nicola Fox

HPC Creates Plenary: High-Performance Computing Shaping the Future
Moderator: Miles O'Brien
Panelists: Juan Alonso, Chris LeDoux, Bronson Messer, Silvia Zorzetti

SCinet Network Architecture

More than 200 volunteers representing 114 organizations from 9 countries planned, built, and operated SCinet:

· 38.5 miles of fiber optic cable installed
· 8.41 terabits per second of wide area network capacity delivered on 27 circuits
· WiFi 6E delivered throughout the convention center via 450 access points

Student Cluster Competition

Overall Winner: Tsinghua University, China

Highest Linkpack Benchmark: Nanyang Technological University, Singapore