

SC25 HPC IGNITES

# SC25



**2025 Chair**  
Lori Diachin  
St. Louis, MO



**16,500+ Attendees**



### Fuel, Spark, & Flame

A robust Papers program saw a record number of submissions, and the Technical Program launched a new poster track, Interactive Research e-Posters.



### Record 524 Exhibitors

Filling the entire America's Center Convention Complex, including The Dome, SC25 reached a new milestone with 524 exhibitors showcasing the breadth of the HPC, AI, and Quantum ecosystem.



### Community Engagement & Support

Community@SC25 supported 5 volunteers local to the St. Louis region to participate in SCinet. The HPC Illuminations Pavilion supported 12 new and under-resourced exhibitors to travel to and attend SC25. An art room where attendees could relax and express their creative spirit was a new and successful initiative.



### Art of HPC

Along with its exhibit, Art of HPC expanded its program to include a Meet the Artists Reception and incorporated Invited Talks, Panels, and Birds of a Feather sessions. A collaboration with HPC Around the World resulted in a platform where attendees could scan their badge, configure a custom fractal based on their information, and display the results on a large-scale digital map.

**1,400**  
unique users

**2,300**  
fractals generated

## 2025

### Top Ten Supercomputers (Via TOP500 List, November 2025)

El Capitan	HPC6
Frontier	Fugaku
Aurora	Alps
JUPITER Booster	LUMI
Eagle	Leonardo

### Test of Time Award

#### The Globus Striped GridFTP Framework and Server

Authors: William Allcock, John Bresnahan, Rikumar Kettimuthu, Michael Link, Catalin Dumitrescu, Ioan Raicu, Ian Foster

### Gordon Bell Prize

#### Real-Time Bayesian Inference at Extreme Scale: A Digital Twin for Tsunami Early Warning Applied to the Cascadia Subduction Zone

Authors: Stafan Henneking, Sreeram Venkat, Veselin Dobrev, John Camier, Tzanio Kolev, Milinda Fernando, Alice-Agnes Gabriel, Omar Ghattas

### ACM Gordon Bell Prize for Climate Modelling

#### Computing the Full Earth System at 1 km Resolution

Authors: Daniel Klocke, Claudia Frauen, Jan Frederik Engels, Dmitry Alexeev, René Redler, Reiner Schnur, Helmuth Haak, Luis Kornbluh, Nils Brüggemann, Fatemeh Chegini, Manoel Römmel, Lars Hoffmann, Sabine Griessback, Mathis Bode, Jonathan Coles, Miguel Gila, William Sawyer, Alexandru Calotoiu, Yakup Budanaz, Pratyai Mazumder, Marcin Copik, Benjamin, Weber, Andreas Herten, Hendryk Bockelmann, Torsten Hoefler, Cathey Hohenegger, Bjorn Stevens

### Best Paper Award

#### ORBIT-2: Scaling Exascale Vision Foundation Models for Weather and Climate Downscaling

Authors: Xiao Wang, Jong-Youl Choi, Takuya Kurihaya, Isaac Lyngaas, Hong-Jun Yoon, Nasik Muhammad Nafi, Aristeidis Tsaris, Fan Ming, Ashwin M Aji, Maliha Hossain, Mohamed Wahib, Dali Wang, Peter Thornton, Moetasim Ashfaq, Prasanna Balaprakash, Dan Lu

### Plenary Sessions

#### Keynote: Gigatrends: The Exponential Forces Shaping Our Digital Future

Speaker: Thomas Koulopoulos

#### HPC Ignites Plenary: Why Should I Care About Quantum Computing

Moderator: Charles Tahan

Panelists: Antonio Córcoles, Hongbin Liu, Kristel Michielsen, Rick Muller

### SCinet Network Architecture

215 volunteers representing 129 organizations from 9 countries planned, built, and operated SCinet:

- A record-breaking 13.72 terabits per second of wide area network capacity
- 30 WAN circuits delivered wif via 450+ access points throughout the convention center
- 46 contributors provided \$70 million in state-of-the-art hardware, software, and services

### Cluster Competitions

Student Cluster Competition Overall Winner: National Taiwan University (Taiwan)

IndySCC Overall Winner: Zhejiang University (China)

- The Students@SC program supported 3 teams, including two international teams from Argentina and Bostswana, to travel to SC25 and participate in person.

