

S C 1 9 H P C I S N O W

SC19



2019 Chair
Michela Taufer
Denver, CO



2019

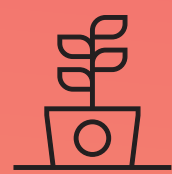
SC19 Gems



Mobile App



OpenTOC Proceedings



Startup Café



Reproducibility Initiative



SC Theater



Blog & Newsletter

Top Ten Supercomputers

(Via Top500 List, November 2019)

Summit

Sierra

Sunway TaihuLight

Tianhe-2A

Frontera

Piz Daint

Trinity

AI Bridging Cloud Infrastructure

SuperMUC-NG

Lassen

Test of Time Award Winner

SC08 Paper: From Dense Linear Algebra to GPU Occupancy

Authors: Vasily Volkov, James Demmel

Gordon Bell Prize Finalists

A Data-Centric Approach to Extreme-Scale Ab Initio Dissipative Quantum Transport Simulations

Authors: Alexandros Nikolaos Ziogas, Tal Ben-Nun, Guillermo Indalecio Fernandez, Timo Schneider, Mathieu Luisier, Torsten Hoefer

Fast, Scalable and Accurate Finite-Element Based Ab Initio Calculations Using Mixed Precision Computing: 46 PFLOPS Simulation of a Metallic Dislocation System

Authors: Sambit Das, Phani Motamarri, Vikram Gavini, Bruno Turcksin, Ying Wai Li, Brent Leback

Plenary Sessions

Keynote: Exploring the Solar System with the Power of Technology

Speaker: Steven Squyres

HPC Is Now Plenary: When Technology Kills

Moderator: Keri Savoca

Panelists: Eric Hunter, Erin Kenneally, Ben Rothke

SCinet Network Architecture

Wide Area Network Capacity: 4.22 Tbps

Wide Area Connection Curcuits: (38)100 Gbps, (1)400 GbE, (2)10 Gbps

Network Carrier Providers: CenturyLink (12)100 Gbps, Zayo (4)100 Gbps,

ESnet (5)100 Gbps, Internet2 (2)100 GbE/Spectrum (15)100 Gbps, (1)400 GbE

