



# ISC 2019 POST-CONFERENCE SUMMARY

FUELING  
INNOVATION

ISC High Performance 2019 featured a diverse array of the latest HPC research, products and services in a welcoming setting. Our 164 exhibitors had the opportunity to connect with 3,573 attendees from 64 countries and engage in productive discussions throughout the conference and exhibition.

# CONFERENCE OVERVIEW

The rapidly evolving technologies of digital modeling, data analytics, exascale computing, and machine learning & AI provides a new and exciting vision for the future of high performance computing. The intersection between these four areas promises to reshape the HPC application landscape in both research and industry, as well as change the nature of high performance systems. The 2019 conference touched on all of these themes in nearly every session and talk, attracting executives, researchers, engineers, and anyone else with a vested interest in the shape of things to come.

## FEATURED SESSIONS AND PROGRAMS

- [Daily Keynotes](#)
- [Distinguished Speaker Series](#)
- [TOP500 List - The 53rd Edition](#)
- [18 Focus Sessions](#)
- [Industrial Day](#)
- [Machine Learning Day](#)
- [Vendor Showdown](#)
- [Panel Discussions](#)

80 percent of surveyed attendees were satisfied with the selection of conference topics and 76 percent were satisfied with the selection of speakers.

SOURCE: ISC 2019 ATTENDEE SURVEY





## AWARDS AT ISC 2019

### HANS MEUER AWARD

GPUMixer: Performance-Driven Floating-Point Tuning for GPU Scientific Applications by Ignacio Laguna, Paul C. Wood, Ranvijay Singh and Saurabh Bagchi

### GAUSS AWARD

End-to-end Resilience for HPC Applications by Arash Rezaei, Harsh Khetawat, Onkar Patil, Frank Mueller, Paul Hargrove and Eric Roman

### PHD FORUM AWARD

Petalisp - Towards Fully Dynamic Program Optimization by Marco Heisig and Harald Koestler

### RESEARCH POSTER AWARDS

- **Architectures & Networks:** Reduction Operations on Modern Supercomputers: Challenges and Solutions by Mohammadreza Bayatpour, Jahanzeb Maqbool Hashmi, Sourav Chakraborty, Hari Subramoni and Dhabaleswar Panda
- **Artificial Intelligence and Machine Learning:** Optimizing Deep Learning LSTM Topologies on Intel Xeon Architecture by Kunal Banerjee, Evangelos Georganas, Dhiraj Kalamkar and Alexander Heinecke
- **HPC Algorithms:** HPC Oriented Algorithm for Computation of Recurrence Quantitative Analysis by Tomáš Martinovič and Georg Zitzlsberger
- **HPC Applications:** Accelerating Chemical Shift Prediction for Large-scale Biomolecular Modeling by Eric Wright, Mauricio Ferrato, Alex Bryer, Robert Searles, Juan Perilla and Sunita Chandrasekaran
- **Programming Models & Systems Software:** Automatic Port to OpenACC/OpenMP for Climate & Weather Code Using the CLAW Compiler by Valentin Clement, Philippe Marti, Xavier Lapillonne, Oliver Fuhrer and Wiliam B. Sawyer

HPC IN ASIA POSTER AWARD

A Skewed Multi-Bank Cache for Vector Processors by Hikaru Takayashiki, Masayuki Sato, Kazuhiko Komatsu and Hiroaki Kobayashi

STUDENT CLUSTER COMPETITION RESULTS

- 1st Place: Centre for High Performance Computing (CHPC), South Africa
- 2nd Place: Tsinghua University, China
- 3rd Place: ETH Zurich, Switzerland
- Highest LINPACK Performance: ETH Zurich, Switzerland
- Fan Favorite: National Cheng Kung University, Taiwan

INCLUSIVITY AT ISC 2019

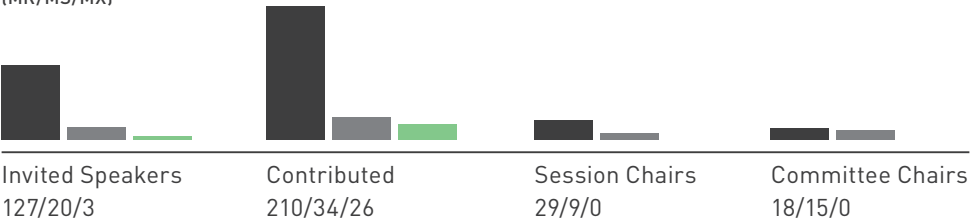
It is the conference’s ongoing commitment to building a community of people who care about each other, help each other succeed, and are there to support each other.

89.6% of all surveyed attendees this year agreed that ISC is a conference that makes all attendees feel welcome.

SOURCE: ISC 2019 ATTENDEE SURVEY

DIVERSITY IN THE CONFERENCE PROGRAM

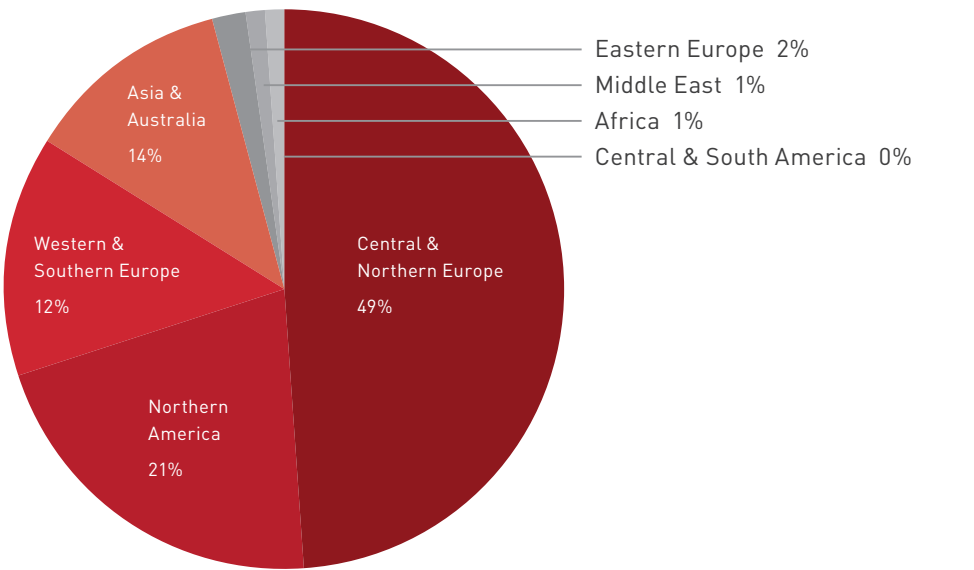
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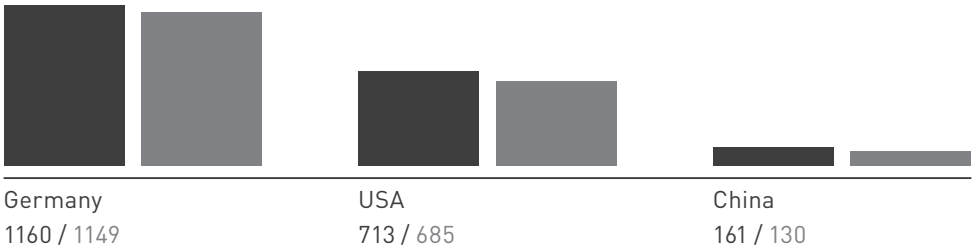
ATTENDEE AGE BREAKDOWN



# ATTENDEES BY REGION




# TOP COUNTRIES IN ATTENDANCE (2019 VS 2018)



The ISC 2019 Summary Video is now available on [YouTube](#).

High-quality images are available for download at [Flickr](#).



# ATTENDEE AFFILIATION

(Booth pass holders excluded)

51 regional and international IT journalists and analysts received free badges to the conference this year.

ACADEMIA  
42%

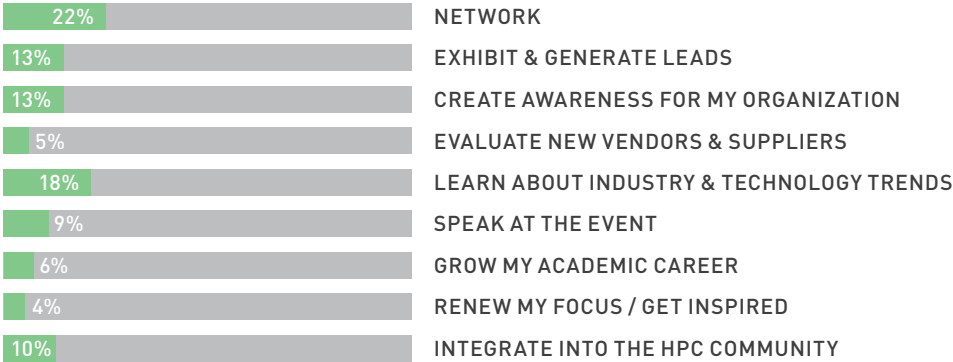
INDUSTRY  
41%

STUDENTS  
15%

MEDIA  
2%

# REASONS FOR ATTENDING ISC 2019

(based on voluntary feedback at registration)



SOURCE: ISC 2019 REGISTRATION PORTAL

# EXHIBITION TRAFFIC

(based on surveyed attendees)



SOURCE: ISC 2019 ATTENDEE SURVEY



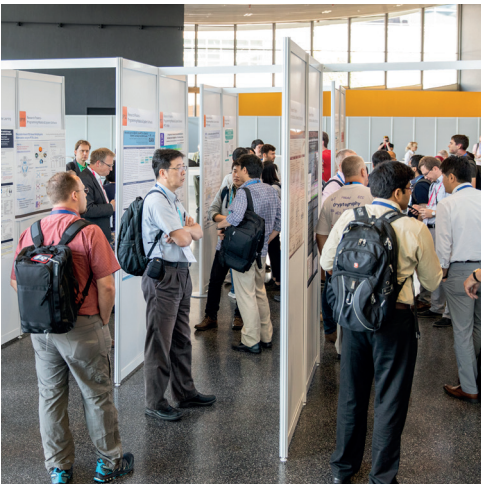
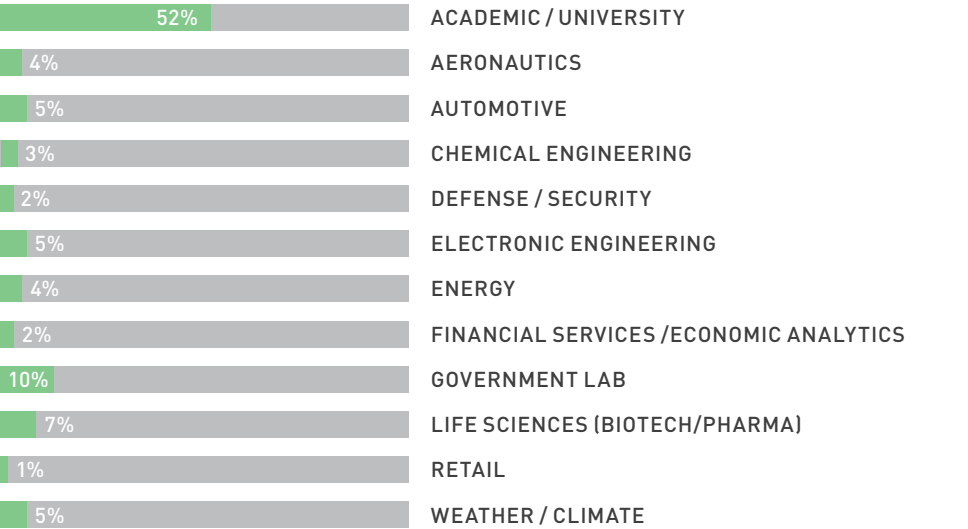
# EXCLUSIVITY OF ISC EXHIBITION



52% of all surveyed attendees don't attend any HPC-related exhibition other than ISC.

## HPC USER CATEGORIES

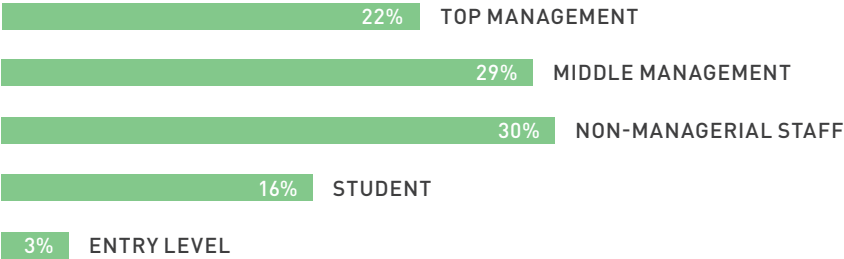
(Booth pass holders excluded)





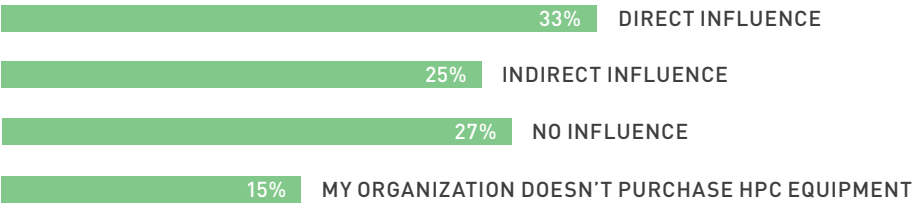
# PROFESSIONAL ACTIVITIES

(Booth pass holders excluded)



# HPC PURCHASING POWER

(Booth pass holders excluded)



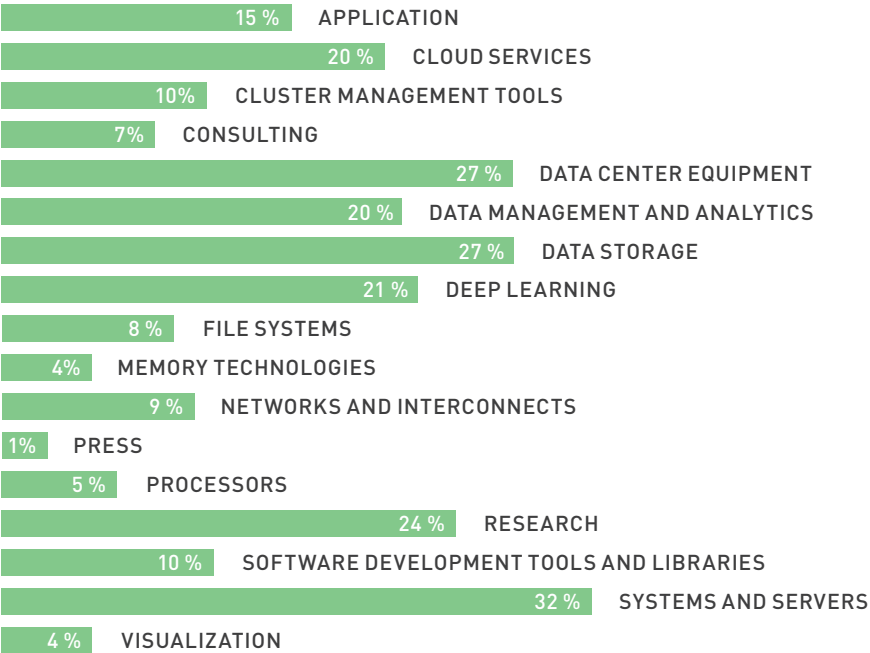


# THE EXHIBITION (June 17 – 19, 2019)

The ISC exhibition hall was buzzing with new products and demonstrations from 114 leading vendors, 48 research organizations and universities, and two publishing houses, from 26 countries. Out of a total of 164 exhibitors, 28 are first-time exhibitors.

## EXHIBITOR CATEGORIES

(includes multiple choices)



## PLATINUM SPONSORS

Atos

Hewlett Packard  
Enterprise

HUAWEI

intel

## GOLD SPONSORS

aws

CRAY

DDN  
STORAGE

DELL  
Technologies

Google Cloud

IBM

Lenovo

Mellanox  
TECHNOLOGIES

ORACLE  
Cloud Infrastructure

SAMSUNG

SUPERMICR

## SILVER SPONSORS

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data centers

BOSTON  
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inspur

MARVELL

Microsoft

Orchestrating a brighter world  
NEC

NetApp

panasas  
Beyond Storage

Western Digital

## BRONZE SPONSORS

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arm

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DATACENTER FACILITIES  
POWER BY TEMPO

BLSC 北龙超云

Bright Computing

CoolIT  
systems

E4  
COMPUTER  
ENGINEERING

EXTOLL  
Security solutions

Fraunhofer  
SCAI

GIGABYTE

Kingston  
TECHNOLOGY

MEGWARE

国家超级计算广州中心  
NATIONAL SUPERCOMPUTER CENTER GUANGZHOU

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ONE STOP SOLUTIONS

QCT

Red Hat

rescale

RNT  
RAUSCH

RSC

STÄUBLI

中科曙光  
Sugon

SUSE

UNIVA

VERNE GLOBAL  
LEADERS IN HIGH PERFORMANCE COMPUTING

XILINX

## MEDIA SPONSORS

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