

CONNECTING THE DOTS



ISC EESP 2026

2nd International ISC Workshop on Energy Efficiency with Sustainable Performance: Techniques, Tools, and Best Practices

<https://ayeshaafzal91.github.io/eesp>

 July 17 June 26 | 9:00 AM–4:00 PM |  Hall X2 – 1st Floor



AYESHA AFZAL

GENERAL CHAIR, ISC EESP WORKSHOP 2026

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Afzal
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NHR@FAU Germany



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- Aleš Zamuda — University of Maribor (Slovenia)
- Zhengji Zhao — LBNL (USA)



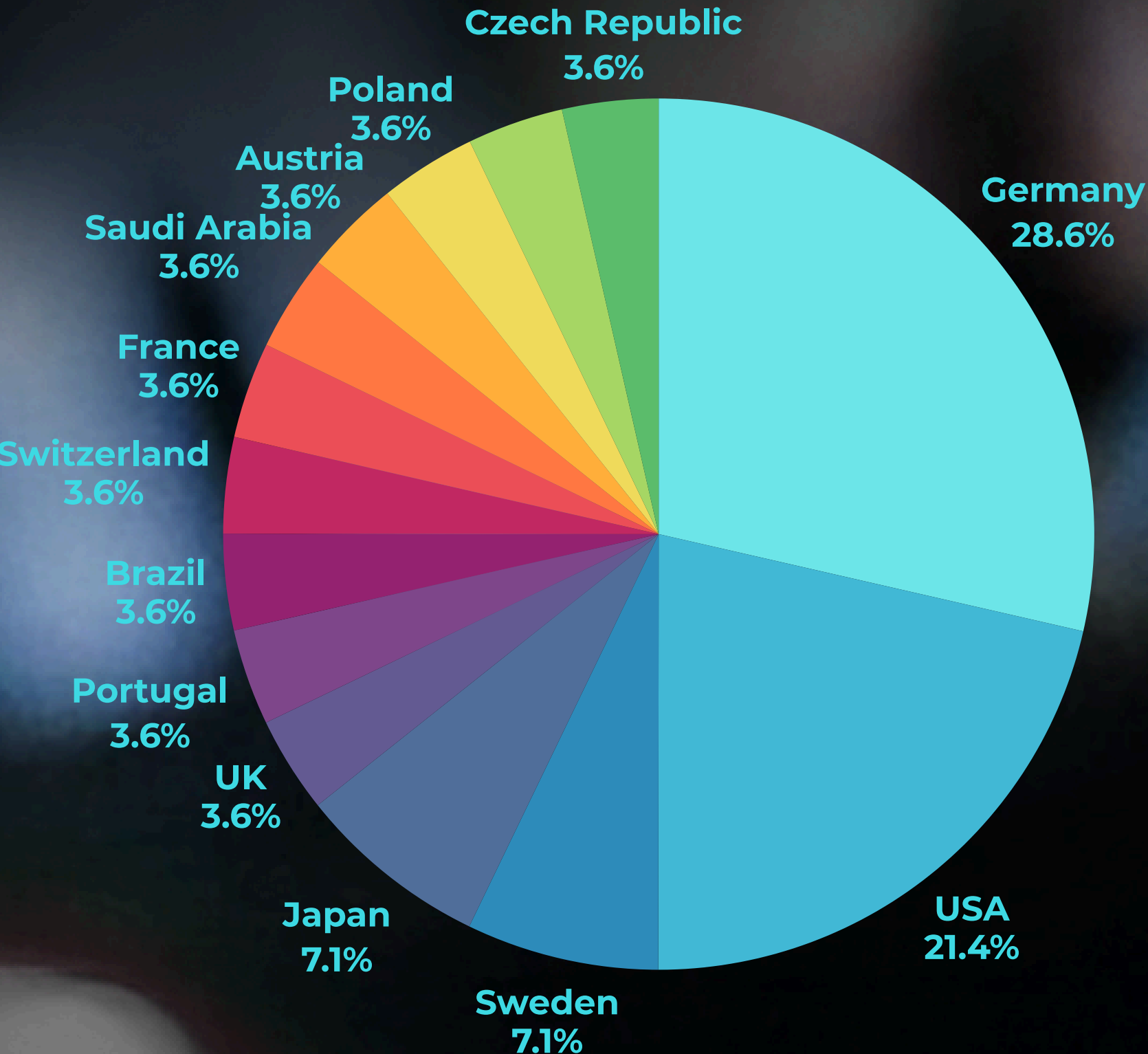
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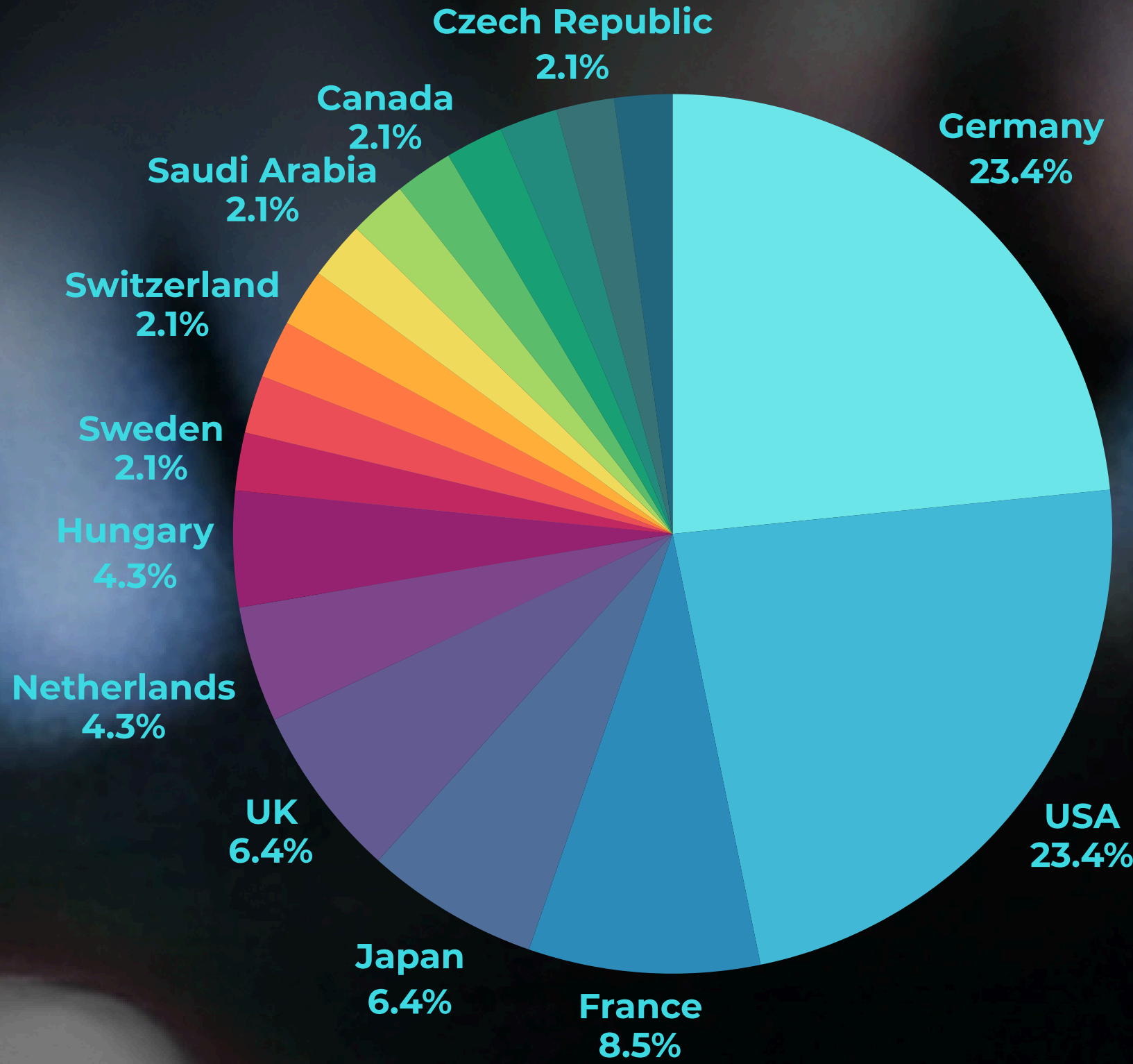
ISC EESP PROGRAM COMMITTEE



1st edition 2025: 33 members



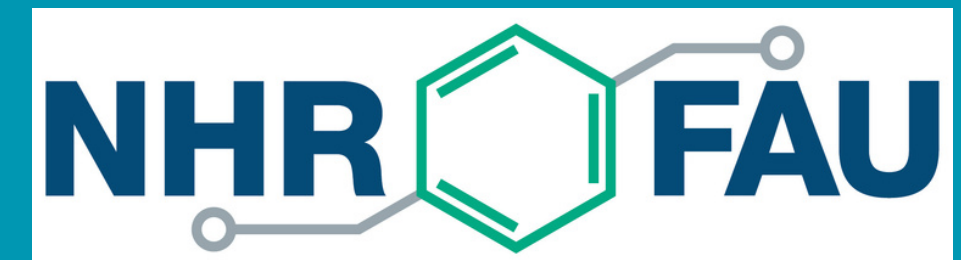
2nd edition 2026: 47 members



ISC EESP COLLABORATORS



Erlangen National High Performance
Computing Center (NHR@FAU), Germany



Energy Efficient HPC Working Group
(EE HPC WG), USA



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NEW AT ISC EESP



1. Workshop extended to a full-day format
2. Special Journal Issue at IJHPCA

EESP Special Journal Issue



The authors of the highest-quality accepted EESP papers, as selected by the Program and Organizing Committee of the workshop, will be invited to submit extended versions of their work to a special issue of the *International Journal of High Performance Computing Applications (IJHPCA)*.

Call for Papers Invitations: 1st October 2026

Submission Deadline: 31st March 2027

First Review Decision: May 2027

Revised Submissions: July 2027

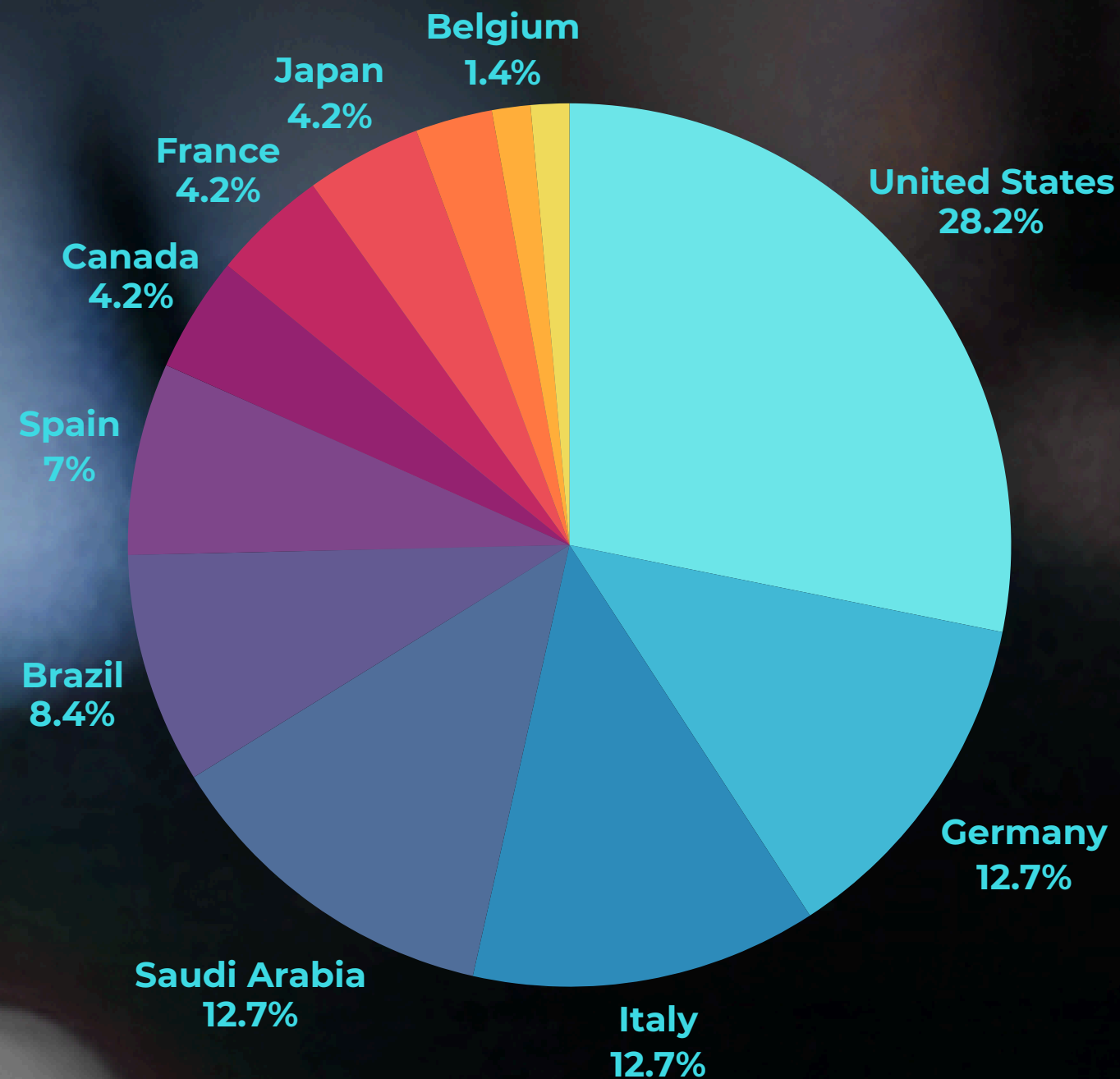
Final Decisions: August 2027

Publication: Late 2027 (online first via ScienceDirect)

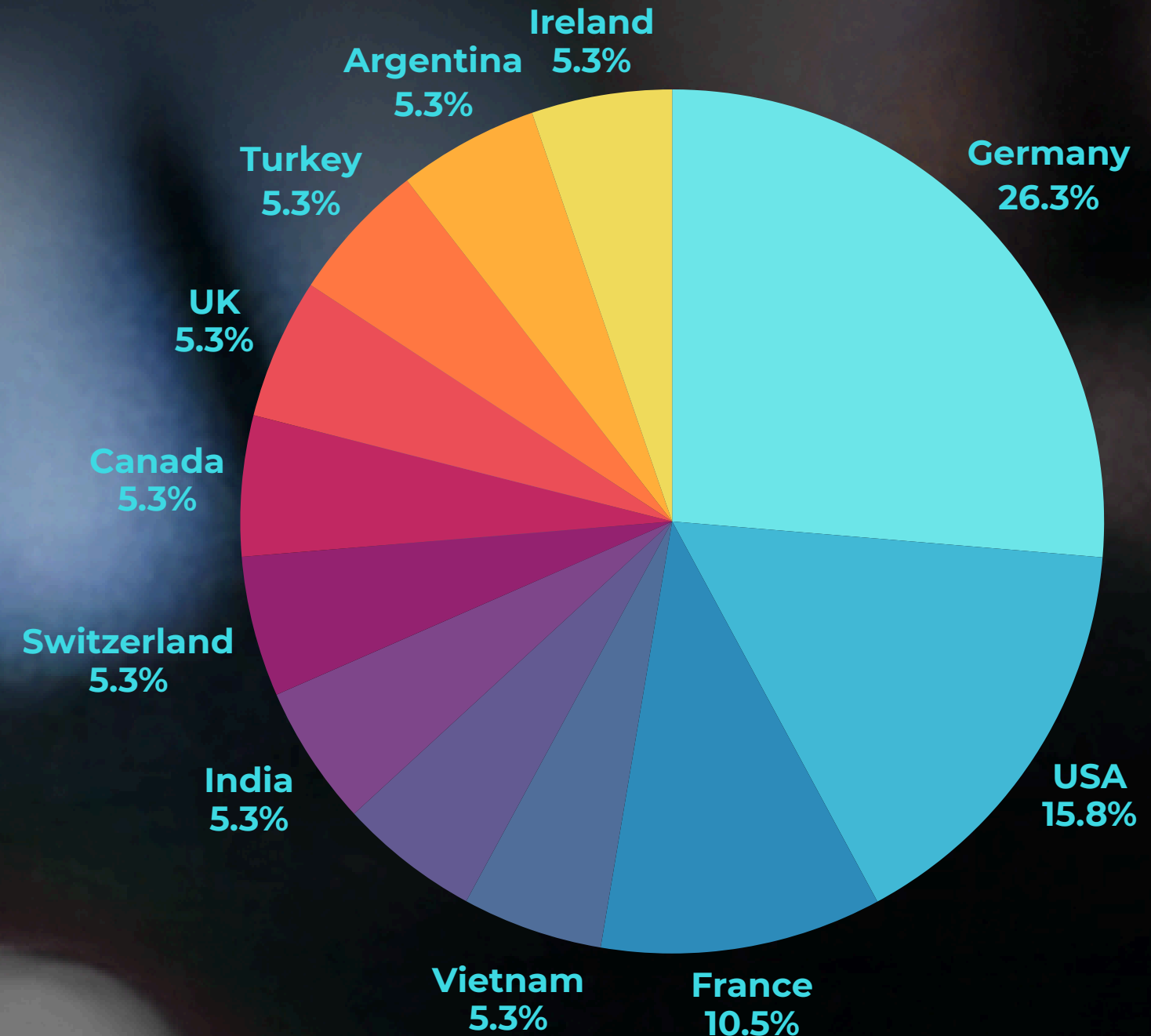
ISC EESP SUBMISSION STATISTICS



1st edition 2025
8 accepted papers
3-4 reviews per submission
half-day workshop



2nd edition 2026
11 accepted papers
3-4 reviews per submission
full-day workshop



ISC EESP PROGRAM SCHEDULE



9:00 – 9:10 a.m. — Welcome remarks & Best Paper announcement
General Chair: Ayesha Afzal

9:10 – 10:10 a.m. — Keynote Speech with Q&A “Every Bit Counts: Posit Computing for Energy-Efficient HPC and AI”
Keynote Speaker: John L. Gustafson

■ Session 1: Numerical Methods & ML Inference

Session Chair: Ayesha Afzal

10:10 – 10:32 a.m. — Energy Consumption Comparison of Conjugate Gradient Method using Posit Arithmetic and IEEE Floating Point

10:32 – 10:55 a.m. — SIS: A Sustainability Index for Evaluating Energy-Efficient LLM Inference Across CPU and GPU Deployments

11:00 – 11:30 a.m. — Coffee Break

■ Session 2: HPC Systems & Scheduling

Session Chair: Michele Weiland

11:30 – 11:52 a.m. — Green500: Adventure in Qualifying a Cluster

11:52 – 12:15 p.m. — A study on improving HPC system efficiency through moldable and mobile job scheduling

12:15 – 12:37 p.m. — Thermal-Aware Core-Level Scheduling For Kubernetes Workloads

12:37 – 1:00 p.m. — Evaluating Power Monitoring Capabilities on The Exascale Supercomputer Aurora

1:00 – 2:00 p.m. — Lunch Break

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■ Session 3: GPU Power, Architecture & Optimization

Session Chair: Bronis R. de Supinski

2:00 – 2:22 p.m. — Architectural Trade-offs in the Energy-Efficient Era: A Comparative Study of power-capping NVIDIA H100 & H200

2:22 – 2:45 p.m. — CompPow: A Case for Component-level GPU Power Management

2:45 – 3:07 p.m. — Coupling Complementary Simulations for Combined Performance and Energy Optimization

■ Session 4: Sustainable & Carbon-Aware Computing

Session Chair: Hatem Ltaief

3:07 – 3:30 p.m. — Carbon-Aware VR: Sustainable Performance Through Human-Centric Computing Continuum

3:30 – 3:52 p.m. — Energy-Aware Algorithm Selection in Particle Simulations: A Case Study with AutoPas

3:52 – 4:00 p.m. — Closing remarks

ISC EESP Organising Committee



Announcing ISC EESP Best Paper Award 2026

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Announcing ISC EESP Best Paper Award 2026

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**Thomas Schlögl, Tuan Huy Do,
Dietmar Fey**

**"Energy Consumption Comparison of
Conjugate Gradient Method using Posit
Arithmetic and IEEE Floating Point"**



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Keynote

Every Bit Counts: Posit Computing for Energy-Efficient HPC and AI




Dr. John L. Gustafson

Arizona State University
and Vq Research



EESP Next Edition at SC26



SC IEEE Xplore DL Proceedings
Keynote by Andrew A. Chien, UChicago
Call for papers due July 25, 2026
<https://ayeshaafzal91.github.io/eesp/SC26>
 November 2026, Chicago, Illinois, USA

Next editions: Open to collaborate? (✉ ayesha.afzal@fau.de)

Organising Committee

Program Committee

Collaborators (industry, laboratories, research centers)

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Please rate our workshop (5 STAR? 😊)

1st ed. 2025 rating: 4.9 out of 5



Thank You

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