



International ISC Birds of a Feather 2026 <<https://ayeshaafzal91.github.io/SHPC>>

HPC Procurement, Energy Efficiency and Sustainability

The Power of the Purse



June 23 | 5:15 PM–6:15 PM | 📍 Hall F – 2nd Floor



Ayesha
Afzal

Organizer –
NHR@FAU Germany



Natalie
Bates

Organizer –
EE HPC WG USA



Jim
Rogers

Speaker –
ORNL USA



Eric
Boyer

Speaker –
GENCI France



Fumiyoshi
Shoji

Speaker –
RIKEN Japan



Gert
Svensson

Speaker –
KTH Sweden



Goal: We will explore:

How contracts shape system design

What has changed from System N $\rightarrow$ System N+1

What should change for System N+2 (2030s)

Format

Welcome (2 min)

3 Lightning talks (18 min)

Interactive community discussion (35 min)

Wrap-up (5 min)



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Fumiyoshi Shoji

■ Lightning Talks: Setting the Stage

- **Duration: 6 minutes** — *Engineering Constraints Affecting HPC Systems*

Speaker: Jim Rogers — Oak Ridge National Laboratory (ORNL), USA

- **Duration: 6 minutes** — *Balancing CAPEX, OPEX, and Sustainability in HPC Procurements*

Speaker: Eric Boyer — GENCI, France

- **Duration: 6 minutes** — *Energy-Efficient Co-Design for Next-Generation Supercomputers*

Speaker: Fumiyoshi Shoji — RIKEN Center for Computational Science (R-CCS), Japan

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Jim Rogers

Oak Ridge National Laboratory, USA

Jim Rogers will discuss procurements for the Frontier Supercomputer that was installed in 2022 and Discovery (OLCF-6) that is scheduled to be installed in 2028. His topics may include the shift to strict power budgets (e.g., the 30-40 MW cap), the requirement for application-driven runtime power & energy management", and the mandate for AI-optimized storage.

BIO Jim Rogers is Computing and Facilities Director for the National Center for Computational Science at the Oak Ridge National Lab. Mr. Rogers has thirty years of experience in high-performance computing (HPC). He has responsibility for strategy, acquisition, delivery, integration, and transition to production for high performance computing, storage, networking, and analysis systems as well as the physical facilities that house the systems. These activities extend across multiple Federal customers.

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Eric Boyer

GENCI, France

Eric Boyer will discuss procurements for the AdastrA supercomputer at CINES and the upcoming Alice Recoque system at CEA. His topics may include the evolution of Total Cost of Ownership (TCO) models to explicitly weigh Operational Expenditures (OPEX) against Capital Expenditures (CAPEX), the use of Life Cycle Assessments (LCA) to determine the optimal operational lifetime of a system, and strategies to balance performance gains with global warming emissions across the full system life cycle.

BIO Eric Boyer, is Chief HPC - HPDA - IA Project Officer at GENCI, the French agency leading procurements for national Tier1 and Tier0 facilities. He has a background as High Performance Computing Research Engineer in national computing centers, in 2018-2022 he led the HPC department at CINES. He is HPC architect including data architecture specific to high-end supercomputers and evaluation expert in acquisition process of HPC platforms. He is responsible of the “Technology Watch Group”, involving GENCI and its partners (CEA, CNRS and French Universities). He has been involved in several prototypes design and assessment program; including recently the PRACE PCP pilot systems and PRACE collaborations. He participates in the acquisition process of national computing facilities, in which he has set up an energy oriented criteria since 2014. He has a diploma of Engineer in Computer Science, and is graduated in mathematics and physics.

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Fumiyoshi Shoji

RIKEN Center for Computational Science, Japan

Fumiyoshi Shoji will discuss the co-design evolution from Fugaku to its successor, FugakuNEXT. His topics may include the explicit requirement for a "significant improvement in power performance" to accommodate the system's first-ever integration of GPUs, and the challenge of delivering effective simulation performance 5 to 10 times better than Fugaku while establishing the world's highest level of AI capabilities within a sustainable energy envelope.

BIO Fumiyoshi Shoji received his PhD from Kanazawa University, Japan, in 2000. He is currently the Director of the Operations and Computer Technologies Division at the RIKEN Center for Computational Science (R-CCS), where he is responsible for the operation and enhancement of Fugaku, its facilities, computing services, and HPCI shared storage. His recent research interests include energy efficiency and carbon neutrality in HPC systems and data center operations, large-scale data management, and the convergence of HPC and cloud computing.



Jim Rogers



Eric Boyer



Fumiyoshi Shoji



Gert Svensson

Interactive Community Discussion

Moderator: Gert Svensson — KTH Royal Institute of Technology, Sweden

- **Duration: 35 minutes — Audience-Driven Discussion**

This interactive segment invites attendees to discuss real-world procurement challenges and strategies for balancing performance, energy efficiency, and sustainability in future HPC systems.

- **Duration: 5 minutes — Summary and Key Takeaways**

The session will conclude with a brief summary of key insights and actionable takeaways for the broader HPC community.