

October 27th and 28th, 2026, in Sendai, Miyagi, Japan

The 42nd Workshop on Sustained Simulation Performance Toward Future HPC Technologies

Session Program

Tue., October 27th, 2026

9:40-10:10	Registration
10:10-10:30	Opening Session
10:30-11:45	Session 1: HPC Trends I
11:45-13:00	Lunch
13:00-14:15	Session 2: Future HPC Systems
14:15-15:05	Session 3: HPC Applications I
15:05-15:35	Coffee Break
15:35-17:15	Session 4: AI and HPC

Wed., October 28th, 2026

9:30-10:00	Registration
10:00-11:15	Session 5: HPC Trends II
11:15-12:05	Session 6: TBD
12:05-13:20	Lunch
13:20-14:10	Session 7: HPC Applications II
14:10-15:25	Session 8: HPC Applications III
15:25-15:35	Concluding Remarks

Workshop Day 1 (Tue., October 27th, 2026)

Time	Presentation
9:40-10:10	Registration
10:10-10:30	Opening Session Chair: Hiroyuki Takizawa (Tohoku University)
10:10-10:15	<i>Opening Address: Welcome to The 42nd Workshop on Sustained Simulation Performance</i> Hiroyuki Takizawa (Tohoku University)
10:15-10:20	<i>Greetings</i> Takuo Suganuma (Tohoku University)
10:20-10:30	<i>TBD</i> Kiyoshi Kurihara (MEXT)
10:30-11:45	Session 1: HPC Trends I Chair: TBD
10:30-10:55	<i>National HPC in the Age of Digital Sovereignty</i> Michael M. Resch (HLRS)
10:55-11:20	<i>Exploring an AI-native computing infrastructure at Tohoku University</i> Hiroyuki Takizawa (Tohoku University)
11:45-13:00	Lunch
13:00-14:15	Session 2: Future HPC Systems Chair: Masayuki Sato (Tohoku University)
13:00-13:25	<i>Towards operation of next-generation HPCI</i> Toshihiro Hanawa (The University of Tokyo)
13:25-13:50	<i>TBD</i> Jens Domke (RIKEN R-CCS)
13:50-14:15	<i>The Next Generation Vector and Global Collaboration</i> Mio Kochiyama (NEC)
14:15-15:05	Session 3: HPC Applications I Chair: TBD
14:15-14:40	<i>TDDFT Study of Hole Dynamics in p-Doped Gallium Nitride</i> Tomoe Yayama (Kogakuin University)
14:40-15:05	<i>Fusion Informatics Center: A Research Platform for Fusion DEMO Development</i> Shinsuke Tokunaga (QST)
15:05-15:35	Coffee Break
15:35-17:15	Session 4: AI and HPC Chair: TBD
15:35-16:00	<i>Ocean and Climate Prediction and Societal Application Using Earth Simulator</i> Yushi Morioka (JAMSTEC)
16:25-16:50	<i>Space-IT</i> Thomas Ludwig (DKRZ)
16:50-17:15	<i>FireDucks on Arm for Accelerating pandas: An Independent Evaluation of Performance and Compatibility</i> Sichen Tao (Tohoku University)

Workshop Day 2 (Wed., October 28th, 2026)

Time	Presentation
9:30-10:00	Registration
10:00-11:15	Session 5: HPC Trends II Chair: Ryusuke Egawa (Tokyo Denki University)
10:00-10:25	<i>The University of Osaka's Cyberinfrastructure: Evolution and Future Directions</i> Susumu Date (The University of Osaka)
10:25-10:50	<i>Vibe Coding HPC: AI-Assisted Development of DTC for Emerging Architectures</i> Johannes Gebert (HLRS)
10:50-11:15	<i>Advancing HPC Research and Development Workflows with High-Speed Data Transfer and Data Provenance for AI-Driven Science</i> Shintaro Momose (NEC), Yosuke Taira (NEC Deutschland GmbH)
11:15-12:05	Session 6: TBD Chair: TBD
11:15-11:40	<i>Continuous Efforts to Improve the Usability of Tohoku University Research Data Lake IZUMI</i> Takaki Nakamura (Tohoku University)
11:40-12:05	<i>TBD</i> Immo Huismann (DLR)
12:05-13:20	Lunch
13:20-14:10	Session 7: HPC Applications II Chair: TBD
13:20-13:45	<i>AI-Assisted Wall-Modelled LES and Flow Control</i> Matthias Meinke (RWTH Aachen)
13:45-14:10	<i>A Simple Machine in a Complex Material: Scaling CalculiX for Screw Fixation in Trabecular Bone</i> Benjamin Schnabel (HLRS)
14:10-15:25	Session 8: HPC Applications III Chair: TBD
14:10-14:35	<i>TBD</i> Robert Hoppe (DLR)
14:35-15:00	<i>TBD</i> Darjan Krijan (HLRS)
15:00-15:25	<i>Beyond the Model: Securing AI from HPC to Applications</i> Matthias Hellmann (ITCC)
15:25-15:35	Concluding Remarks
15:25-15:35	<i>Closing Address</i> Takuo Suganuma (Tohoku University)