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	*Opening Address: Welcome to The 42nd Workshop on Sustained Simulation Performance* **Hiroyuki Takizawa** (Tohoku University)
10:15-10:20	*Greetings* **Takuo Suganuma** (Tohoku University)
10:20-10:30	*TBD* **Kiyoshi Kurihara** (MEXT)
10:30-11:45	Session 1: HPC Trends I — Chair: TBD
10:30-10:55	*National HPC in the Age of Digital Sovereignty* **Michael M. Resch** (HLRS)
10:55-11:20	*Exploring an AI-native computing infrastructure at Tohoku University* **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	*Towards operation of next-generation HPCI* **Toshihiro Hanawa** (The University of Tokyo)
13:25-13:50	*TBD* **Jens Domke** (RIKEN R-CCS)
13:50-14:15	*The Next Generation Vector with RISC-V Project Update* **Mio Kochiyama** (NEC)
14:15-15:05	Session 3: HPC Applications I — Chair: TBD
14:15-14:40	*TDDFT Study of Hole Dynamics in p-Doped Gallium Nitride* **Tomoe Yayama** (Kogakuin University)
14:40-15:05	*Fusion Informatics Center: A Research Platform for Fusion DEMO Development* **Shinsuke Tokunaga** (QST)
15:05-15:35	Coffee Break
15:35-17:15	Session 4: AI and HPC — Chair: TBD
15:35-16:00	*Ocean and Climate Prediction and Societal Application Using Earth Simulator* **Yushi Morioka** (JAMSTEC)
16:25-16:50	*Space-IT* **Thomas Ludwig** (DKRZ)
16:50-17:15	*FireDucks on Arm for Accelerating pandas: An Independent Evaluation of Performance and Compatibility* **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	*The University of Osaka's Cyberinfrastructure: Evolution and Future Directions* **Susumu Date** (The University of Osaka)
10:25-10:50	*Vibe Coding HPC: AI-Assisted Development of DTC for Emerging Architectures* **Johannes Gebert** (HLRS)
10:50-11:15	*Advancing HPC Research and Development Workflows with High-Speed Data Transfer and Data Provenance for AI-Driven Science* **Shintaro Momose** (NEC), Yosuke Taira (NEC Deutschland GmbH)
11:15-12:05	Session 6: TBD Chair: TBD
11:15-11:40	*Continuous Efforts to Improve the Usability of Tohoku University Research Data Lake IZUMI* **Takaki Nakamura** (Tohoku University)
11:40-12:05	*TBD* **Immo Huismann** (DLR)
12:05-13:20	Lunch
13:20-14:10	Session 7: HPC Applications II Chair: TBD
13:20-13:45	*AI-Assisted Wall-Modelled LES and Flow Control* **Matthias Meinke** (RWTH Aachen)
13:45-14:10	*A Simple Machine in a Complex Material: Scaling CalculiX for Screw Fixation in Trabecular Bone* **Benjamin Schnabel** (HLRS)
14:10-15:25	Session 8: HPC Applications III Chair: TBD
14:10-14:35	*TBD* **Robert Hoppe** (DLR)
14:35-15:00	*TBD* **Darjan Krijan** (HLRS)
15:00-15:25	*Beyond the Model: Securing AI from HPC to Applications* **Matthias Hellmann** (ITCC)
15:25-15:35	Concluding Remarks
15:25-15:35	*Closing Address* **Takuo Suganuma** (Tohoku University)