

# The 23rd Workshop on Sustained Simulation Performance

## - Technical Program -

March 16th and 17th, 2016  
Sendai, Miyagi, Japan

### Session Program

Workshop Day 1 (Wed., March 16th, 2016)	
	Registration
10:00-10:30	Opening Session
10:30-11:10	Keynote Talk I
11:10-12:10	Session 1 "Organizers' Talks I"
12:10-13:10	Lunch
13:10-14:10	Session 2 "System Software"
14:10-15:10	Session 3 "Applications I"
15:10-15:30	Coffee Break
15:30-17:00	Session 4 "CFD"

Workshop Day 2 (Thu., March 17th, 2016)	
	Registration
10:00-10:40	Keynote Talk II
10:40-10:50	Break
10:50-12:20	Session 5 "Applications II"
12:20-13:30	Lunch
13:30-14:30	Session 6 "Organizers' Talks II"
14:30-15:30	Session 7 "SX-ACE"
15:30-15:50	Coffee Break
15:50-17:20	Session 8 "Young Researchers"
17:20-17:30	Concluding Remarks

## Workshop Day 1 (Wed., March 16th, 2016)

Time	Presentation
	Registration
	Opening Session
10:00-10:05	<i>Opening Remarks</i> <b>Hiroaki Kobayashi</b> (Tohoku Univ.)
10:05-10:15	<i>Greetings</i> <b>Takafumi Aoki</b> (Tohoku Univ.)
10:15-10:30	<i>HPC Policy in Japan</i> <b>Katsuyuki Kudo</b> (MEXT)
	Keynote Talk I
10:30-11:10	<i>Parallel Algorithms: Theory, Practice and Education</i> <b>Vladimir Voevodin</b> (Moscow State Univ.)
	Session 1 "Organizers' Talks I"
11:10-11:40	<i>HPC strategies in 2025</i> <b>Michael Resch</b> (HLRS, Univ. Stuttgart)
11:40-12:10	<i>Highly-Productive Computing on Modern and Future Vector Platforms</i> <b>Hiroaki Kobayashi</b> (Tohoku Univ.)
12:10-13:10	Lunch
	Session 2 "System Software"
13:10-13:40	<i>HPC and HPDA - What is missing</i> <b>Bastian Koller</b> (HLRS)
13:40-14:10	<i>Performance Engineering of HPC Applications Based on Pattern Matching</i> <b>Hiroyuki Takizawa</b> (Tohoku Univ.)
	Session 3 "Applications I"
14:10-14:40	<i>Spectral structures for nonlinear operators on arbitrary compact spaces</i> <b>Uwe Kuester</b> (HLRS)
14:40-15:10	<i>Computation of Temperature Elevation in the Human Body for Ambient Heat Using Vector Supercomputer SX-ACE</i> <b>Akimasa Hirata</b> (Nagoya Inst. of Tech.)
15:10-15:30	Coffee Break
	Session 4 "CFD"
15:30-16:00	<i>Simulation of Turbulent Flows including Multiphysics</i> <b>Matthias Meinke</b> (AIA RWTH Aachen)
16:00-16:30	<i>HPC Applications for Manufacturing Innovation in Aerospace Fields</i> <b>Ryoji Takaki</b> (JAXA)
16:30-17:00	<i>Towards Aerodynamic Characteristics Investigation Based On Cartesian Methods for Low-Reynolds Number Flow Simulation</i> <b>Daisuke Sasaki</b> (Kanazawa Inst. of Tech.)

## Workshop Day 2 (Thu., March 17th, 2016)

Time	Presentation
	Registration
	<b>Keynote Talk II</b>
10:00-10:40	<i>Simulation of Time Sequential Deformation Behaviors of Diseased Blood vessel Wall under Pulsatile Pressure Conditions based on CFD</i> <b>Toshimitsu Yokobori</b> (Tohoku Univ.)
10:40-10:50	Break
	<b>Session 5 "Applications II"</b>
10:50-11:20	<i>Eulerian-Lagrangian Approach For Reactive Flows Consisting of Polidisperse Particles</i> <b>Akiko Matsuo</b> (Keio Univ.)
11:20-11:50	<i>Performance Study on Two-Path Aliasing-Free Calculation of a Spectral DNS Code</i> <b>Mitsuo Yokokawa</b> (Kobe Univ.)
11:50-12:20	<i>A direct solver of sparse matrix for fluid problems on a multicore supercomputer</i> <b>Atsushi Suzuki</b> (Osaka Univ., Cybermedia Center)
12:20-13:30	Lunch
	<b>Session 6 "Organizers' Talks II"</b>
13:30-14:00	<i>The Prototype of JAMSTEC "Cyber System" for Geo- and Oceanographic Information</i> <b>Kenichi Itakura</b> (JAMSTEC)
14:00-14:30	<i>NEC Vector Supercomputer and Its Application</i> <b>Shintaro Momose</b> (NEC/Tohoku Univ.)
	<b>Session 7 "SX-ACE"</b>
14:30-15:00	<i>APES on SX-ACE</i> <b>Harald Klimach</b> (Univ. of Siegen)
15:00-15:30	<i>A Case Study of Memory Optimization on SX-ACE</i> <b>Raghunandan Mathur</b> (NEC Technologies India)
15:30-15:50	Coffee Break
	<b>Session 8 "Young Researchers"</b>
15:50-16:20	<i>A Correctness Verification Framework for Empirically Tuning Large-scale HPC Applications</i> <b>Shoichi Hirasawa</b> (Tohoku Univ.)
16:20-16:50	<i>Semiconductor simulation based on a parallel domain decomposition method</i> <b>Shohiro Sho</b> (Osaka Univ., Cybermedia Center)
16:50-17:20	<i>Efficient coupling of acoustic and flow on massively parallel systems</i> <b>Verena Krupp</b> (Univ. of Siegen)
17:20-17:30	Concluding Remarks