

Japan-Russia Workshop Schedule

Date: 10.12.2015

The investigation of hydrodynamic instabilities and turbulence in fundamental and technological problems by means of mathematical modeling on supercomputers

VBL4F seminar room

Time	Title	Author(s)	Speaker
9:30am	Registration		
9:50am	Opening address	Katsuya ISHII(Nagoya University)	Ishii
10:00am	Logically Simple Algorithms: a Key to the Success of Exaflop Computing	BORIS CHETVERUSHKIN (Keldysh Institute for Applied Mathematics)	CHETVERUSHKIN
10:30am	Numerical simulations for flows in lakes and archipelagos	Hiroshi Suito, Shota Doi, Kenji Okubo(Okayama University)	Suito
11:00am	BREAK(30min)		
11:30am	General Atmospheric Circulation of Earth	VALERIY CHECHETKIN (Keldysh Institute for Applied Mathematics)	CHECHETKIN
12:00pm	Work Done by Fluid Particles in Different Modes of the Taconis Oscillations in a Closed Cylindrical Tube	Shizuko Adachi(Tokyo International University), Katsuya Ishii, Hiroyuki Hayashi(Nagoya University), Igor Menshov(Keldysh Institute for Applied Mathematics)	Adachi
12:30pm	LUNCH(90min)		
2:00pm	Modeling unsteady 3D flows using the FLUX program package	ALEKSANDR BABAKOV (Institute for Computer Aided Design)	BABAKOV
2:30pm	Direct numerical simulations of canonical high Reynolds number turbulence	Takashi Ishihara(Nagoya University), Koji Morishita, Mitsuo Yokokawa(Kobe University), Atsuya Uno(RIKEN), Yukio Kaneda(Aichi Institute of Technology)	Ishihara
3:00pm	On the Taylor's Frozen Hypothesis in Wall Turbulent Flow	Masayuki Sano(Nagoya University), Yoshinobu Yamamoto (Yamanashi University), Yoshiyuki Tsuji (Nagoya University)	Sano
3:30pm	BREAK(30min)		
4:00pm	On a Monotone Finite-Difference Scheme of the Second Order of Approximation	VALENTIN GUSHCHIN (Institute for Computer Aided Design)	GUSHCHIN
4:30pm	Turbulent/non-turbulent interface in turbulent magnetohydrodynamic channel flows at low magnetic Reynolds number	Naoya Okamoto, Yusuke Otake, Takashi Ishihara (Nagoya University)	Okamoto
5:00pm	The onset of turbulence in a transitional flat-plate boundary layer	Seiichiro Izawa, Joe Yoshikawa, Yu Nishio, Yu Fukunishi (Tohoku University)	Izawa
6:00pm	DINNER		
	Discussion		

Japan-Russia Workshop Schedule

Date: 11.12.2015

High-Performance Computing Technologies for Fluid Dynamics Problems

VBL3F Venture Hall

Time	Title	Author(s)	Speaker
9:40am	Registration		
10:00am	Power and non-power laws of passive scalar moments in isotropic turbulence at very high Reynolds numbers	Toshiyuki Gotoh, Takeshi Watanabe (Nagoya Institute of Technology)	Gotoh
10:30am	Theoretical Study of turbulent Gas Flows	AIEXEY LIPANOV (Keldysh Institute for Applied Mathematics)	LIPANOV
11:00am	Performance evaluation of DNS code based on high-order accuracy finite difference methods	Yoshinobu Yamamoto(Yamanashi University), Ryusuke Egawa, Yoko Isobe, Yoshiyuki Tsuji (Nagoya University)	Yamamoto
11:30am	BREAK(20min)		
11:50pm	SIMPLE A POSTERIORI LIMITER TOWARDS FLOW SIMULATIONS WITH 64 TIMES HIGHER RESOLUTION - Multidimensional Extension and Reconstruction	Keiichi KITAMURA(Yokohama National University), Atsushi HASHIMOTO(JAXA)	Kitamura
12:20pm	An Accurate Eulerian Approach for Multi-Fluid Flow Simulations	Igor MENSHOV (Keldysh Institute for Applied Mathematics)	MENSHOV
12:50pm	LUNCH(80min)		
2:10pm	Development of Fast and Efficient CFD Tools, and Extension to Unsteady Simulation	Atsushi Hashimoto, Takashi Ishida, Takashi Aoyama(JAXA)	Hashimoto
2:40pm	Detonation Propagation in Hydrogen-Air Mixtures with Concentration Gradients	ILYA SEMENOV (Institute for Computer Aided Design)	SEMENOV
3:10pm	Hall effects on homogeneous magnetohydrodynamic turbulence	H. Miura (National Institute for Fusion Science)	Miura
3:40pm	BREAK(20min)		
4:00pm	Numerical study of vortical structures in a cylindrical domain with a rotating disk inside	Shinichiro Yanase, Yusuke Nakano, Toshinori Kouchi, Yasunori Nagata and Yoshiya Shimizu (Okayama University)	Yanase
4:30pm	Numerical Modeling of Transient Structures in the Disks of Spiral Galaxies	ALEXEY LUGOVSKIY (Keldysh Institute for Applied Mathematics)	LUGOVSKIY
5:00pm	Closing address		