

15th NEXT Workshop

Kyoudai Kaikan, Room210(oral), Room102(poster)
(J):Japanese, (E): English , (J/E): Japanese or English

Mar. 17th (Wed.)

12:50 - 13:00 Registration

13:00 - 13:10 Masatoshi Yagi (JAEA)

"Opening remark"

Invited session 1(J/E) "Next generation supercomputing" Chair: Masatoshi Yagi (JAEA)

13:10 - 13:40 Takayuki Aoki (Tokyo institute of Technolog)

" Large-scale high-performance GPU Computing for Computational Fluid Dynamics"

13:40 - 14:20 Mamoru Nakano (CRAY Japan Inc.)

"Using Peta flops system and progressing towards Exascale computing"

14:20 - 14:50 Hiroshi Takemiya (JAEA)

"Efficient Execution of the MHD analysis code MARG2D on Cell Broadband Engine"

Session 1(J/E) "Integrated modeling and DEMO reactor design" Chair: Yasuaki Kishimoto (Kyoto Univ.)

14:50 - 15:20 Kunihiko OKANO (CRIEPI)

"Simulation for Demo Reactors"

15:20 - 15:50 Noriyoshi Nakajima (NIFS)

"Activities on fusion simulations by using the next generation supercomputer"

15:50 -16:10 Coffee break

16:10 - 16:40 Atsushi Fukuyama (Kyoto Univ.)

"Kinetic integrated modeling of tokamak plasmas"

16:40 - 17:10 Nobuhiko Hayashi (JAEA)

"Present status of integrated modeling in JAEA"

Invited session 2(J/E) "Next generation supercomputing" Chair: Masatoshi Yagi (JAEA)

17:10 - 17:40 Hiroshi Naitou (Yamaguchi Univ.)

" Parallelization of Gyrokinetic PIC code for MHD simulation"

17:40 - 18:20 Takashi Ishihara (Nagoya Univ.)

"High resolution direct numerical simulations of turbulence on recent supercomputers"

18:30 - 20:00 Conference dinner (Kyoudai Kaikan, Room 212)

3月18日(木)/Mar. 18th (Thu.)

9:00 - 9:10 Registration

Session 2(E) "Neoclassical and Turbulent momentum transport" Chair: Yasutaro Nishimura (Cheng Kung Univ.)

9:10 - 9:40 Jong-Kyu Park (PPPL)

"Calculations of non-ambipolar transport and magnetic braking experiments for validations in tokamaks"

9:40 - 10:10 Shinsuke Satake (NIFS)

"Simulation study of neoclassical toroidal viscosity in tokamaks"

10:10 - 10:40 Mitsuru Honda (JAEA)

"Plasma rotation induced by radial current due to non-ambipolarity"

10:40 - 11:00 Coffee break

11:00 - 11:30 Yann Camenen (Univ. Warwick)

"Turbulent transport of parallel momentum in gyrokinetic simulations"

11:30 - 12:00 Yasuhiro Idomura (JAEA)

"Rotation scan numerical experiment of ITG turbulence using GT5D"

12:00 - 13:00 Lunch

13:00 - 16:00 **Poster session(J/E)**

Session 3(E) "Kinetic plasma simulations" Chair: Hiroshi Naitou (Yamaguchi Univ.)

16:00 - 16:30 Masanori Nunami (NIFS)

"Development of gyrokinetic Vlasov code including full three-dimensional geometry of confinement field"

16:30 - 17:00 Sébastien Jolliet (JAEA)

"Plasma Size Scaling of Avalanche-like Ion Heat Transport in Tokamaks"

17:00 - 17:20 Kenji Imadera (Kyoto Univ.)

"Global profile relaxation and entropy dynamics in turbulent transport"

17:20 - 17:40 Maxime Lesur (JAEA/CEA/Ecole Polytechnique)

"Estimation of Kinetic Parameters based on Chirping Alfvén Eigenmodes"

17:40 - 18:00 Discussion

Mar. 19th(Fri.)

9:00 - 9:10 Registration

Session 4(E) "MHD workshop 1" Chair: Katuji Ichiguchi (NIFS)

9:10 - 9:40 Makoto Hirota (JAEA)

"Lagrangian approach to weakly nonlinear analysis of MHD modes"

9:40 - 10:10 Junya Shiraishi (JAEA)

"Revisiting matching theory for stability analysis of resistive wall modes in rotating plasmas"

10:10 - 10:40 Masaru Furukawa (Univ. Tokyo)

"Numerical matching technique for resistive MHD modes"

10:40 - 11:00 Coffee break

Session 5(E) "MHD Workshop 2" Chair: Noriyoshi Nakajima (NIFS)

11:00 - 11:30 Seiya Nishimura (NIFS)

"Nonlinear dynamics of magnetic islands and electromagnetic turbulence"

11:30 - 12:00 Akihiro Ishizawa (NIFS)

"Turbulence driven magnetic reconnection causing long-wavelength magnetic islands"

12:00 - 12:20 Miho Janvier (Kyoto Univ.)

"A Mechanism of the Nonlinear Destabilization and Explosive Dynamics in the Double Tearing Mode"

12:20 - 12:40 Kinya Saito (Grad. Univ. Advanced Studies)

"Interaction between Static Magnetic Islands and Interchange Modes in a Straight Heliotron Plasma with High Resistivity"

12:40 - 13:40 Lunch

Session 6(E) "MHD Workshop 3" Chair: Atsushi Fukuyama (Kyoto Univ.)

13:40 - 14:10 Yasutaro Nishimura (Cheng Kung Univ.)

"Discussions on simulation models for gyrokinetic MHD in tokamak plasmas"

14:10 - 14:40 Katuji Ichiguchi (NIFS)

"Multi-Scale MHD Analysis of Beta-Increasing Heliotron Plasma"

14:40 - 15:10 Nobuyuki Aiba (JAEA)

"Destabilization mechanisms of the edge-localized MHD mode by the toroidal rotation with shear in tokamaks"

15:10 - 15:40 Masatoshi Yagi (Kyushu Univ.)

"Global Gyro-fluid Simulation of Internal Transport Barrier"

15:40 - 16:00 Discussion

16:00 - 16:10 Masatoshi Yagi (JAEA)

"Summary"

Poster session (Mar. 18th, 13:00-16:00, Room102)

1.	Gakushi Kawamura	NIFS	LHD divertor plasma modeling and impurity redeposition simulation
2.	Motoki Nakata	Grad. Univ. Advanced Studies	Vortex structures and transport in toroidal ETG turbulence
3.	Seikichi Matsuoka	Grad. Univ. Advanced Studies	Neoclassical Transport Calculation for Electrons by Using δf Monte Carlo Method
4.	Satohiro Izumi	Kyoto Univ.	Diffusion of energetic ions due to the electromagnetic perturbation in toroidal plasmas
5.	Syuji Inamoto	Kyoto Univ.	Particle Simulation using OpenCL
6.	Tomohisa Okamoto	Kyoto Univ.	Analysis of low-frequency Alfvén eigenmodes in tokamak plasma
7.	Takashi Shirakawa	Kyoto Univ.	Simulation study of ICRF heating by GNET in toroidal plasmas
8.	Haruki Seto	Kyoto Univ.	Modeling of two-dimensional transport in tokamak plasmas
9.	Hideo Nuga	Kyoto Univ.	Time evolution of momentum distribution function in ITER plasmas
10.	Yoshitada Masaoka	Kyoto Univ.	The confinement and the loss process of the alpha particles in the LHD type reactor
11.	Keisuke Matsumura	Kyoto Univ.	Transport Simulation Including the Effect of Cyclotron Radiation by TASK/TR
12.	Yuichiro Maruyama	Kyoto Univ.	Quasi-wave-optical analysis of electron cyclotron waves in a small-size tokamak
13.	Masaki Miki	Kyoto Univ.	Transport simulation of helical plasmas using the TASK/TX code
14.	Yohei Moriya	Kyoto Univ.	Simulation study of ECCD by GNET in the Heliotron-J plasmas
15.	Jiquan Li	Kyoto Univ.	Magnetic-island-induced short wavelength ITG instability in multiscale turbulence simulation
16.	Daniel Raburn	Kyoto Univ.	Numerical calculation of axisymmetric MHD equilibria with FLR effects and flow in a reduced two-fluid model
17.	Arimitsu Wakasa	Kyoto Univ.	Transport simulation using TASK3D in LHD plasmas
18.	Daisuke Saitou	Kyoto Univ.	A study of numerical simulation of the Vlasov-Poisson equation system using the IDO scheme
19.	Takashi Kanki	Japan Coast Guard Academy	MHD Simulation of Kinking Behavior and Plasma Flow in Helicity-Driven Torus Plasmas
20.	Yasuhiro Kagei	RIST	Numerical matching method using Laplace transform for ideal MHD stability analysis

21.	Atsushi Fukuyama	Kyoto University	BPSI Framework for Integrated Toroidal Plasma Modeling
-----	---------------------	------------------	--

A list of participants

	氏名	所属	氏名(英文)	所属(英文)
1.	内藤 裕志	山口大学	Hiroshi Naitou	Yamaguchi Univ.
2.	カメネン ヤン	ウォーリック大学	Yann Camenen	Univ. Warwick
3.	古川 勝	東京大学	Masaru Furukawa	Univ. Tokyo
4.	青木 尊之	東京工業大学	Takayuki Aoki	Tokyo institute of Technology
5.	影井 康弘	高度情報科学技術研究機構	Yasuhiro Kagei	RIST
6.	パク ジュング	プリンストンプラズマ物理研究所	Jong-Kyu Park	Princeton Plasma Physics Lab.
7.	沼波 政倫	核融合科学研究所	Masanori Nunami	NIFS
8.	中島 徳嘉	核融合科学研究所	Noriyoshi Nakajima	NIFS
9.	石澤 明宏	核融合科学研究所	Akihiro Ishizawa	NIFS
10.	伊藤 淳	核融合科学研究所	Atsushi Ito	NIFS
11.	河村 学思	核融合科学研究所	Gakushi Kawamura	NIFS
12.	西村 征也	核融合科学研究所	Seiya Nishimura	NIFS
13.	佐竹 真介	核融合科学研究所	Shinsuke Satake	NIFS
14.	市口 勝治	核融合科学研究所	Katuji Ichiguchi	NIFS
15.	石原 卓	名古屋大学	Takashi Ishihara	Nagoya Univ.
16.	矢木 雅敏	九州大学	Masatosi Yagi	Kyushu Univ.
17.	河音 憲	京都大学	Ken Kawaoto	Kyoto Univ.
18.	泉 恵大	京都大学	Satohiro Izumi	Kyoto Univ.
19.	政岡 義唯	京都大学	Yoshitada Masaoka	Kyoto Univ.
20.	丸山 優一郎	京都大学	Yuichiro Maruyama	Kyoto Univ.
21.	岡本 知久	京都大学	Tomohisa Okamoto	Kyoto Univ.
22.	ジャンヴィエ 美穂	京都大学	Miho Janvier	Kyoto Univ.
23.	瀬戸 春樹	京都大学	Haruki Seto	Kyoto Univ.
24.	守屋 要兵	京都大学	Yohei Moriya	Kyoto Univ.
25.	稲本 修治	京都大学	Syuji Inamoto	Kyoto Univ.
26.	松村 圭祐	京都大学	Keisuke Matsumura	Kyoto Univ.
27.	今寺 賢志	京都大学	Kenji Imadera	Kyoto Univ.
28.	斎藤 大介	京都大学	Daisuke Saitou	Kyoto Univ.

29.	李 継全	京都大学	Jiquan Li	Kyoto Univ.
30.	岸本 泰明	京都大学	Yasuaki. Kishimoto	Kyoto Univ.
31.	福山 淳	京都大学	Atsushi Fukuyama	Kyoto Univ.
32.	白川 隆史	京都大学	Takashi Shirakawa	Kyoto Univ.
33.	三木 真幸	京都大学	Masaki Miki	Kyoto Univ.
34.	奴賀 秀男	京都大学	Hideo Nuga	Kyoto Univ.
35.	若狭 有光	京都大学	Arimitsu Wakasa	Kyoto Univ.
36.	レイバン ダニエル	京都大学	Daniel Raburn	Kyoto Univ.
37.	神吉 隆司	海上保安大学校	Takashi Kanki	Japan Coast Guard Academy
38.	レジュール マキシム	日本原子力研究開発機構	Maxime Lesur	JAEA/CEA/Ecole Polytechnique
39.	ジョリエ セバスチャン	日本原子力研究開発機構	Sébastien Jolliet	JAEA
40.	武宮 博	日本原子力研究開発機構	Hiroshi Takemiya	JAEA
41.	井戸村 泰宏	日本原子力研究開発機構	Yasuhiro Idomura	JAEA
42.	林 伸彦	日本原子力研究開発機構	Nobuhiko Hayashi	JAEA
43.	廣田 真	日本原子力研究開発機構	Makoto Hirota	JAEA
44.	中尾 一美	日本原子力研究開発機構	Kazumi Nakao	JAEA
45.	本多 充	日本原子力研究開発機構	Mitsuru Honda	JAEA
46.	相羽 信行	日本原子力研究開発機構	Nobuyuki Aiba	JAEA
47.	白石 淳也	日本原子力研究開発機構	Junya Shiraishi	JAEA
48.	斉藤 欣也	総合研究大学院大学	Kinya Saito	Grad. Univ. Advanced Studies
49.	仲田 資季	総合研究大学院大学	Motoki Nakata	Grad. Univ. Advanced Studies
50.	松岡 清吉	総合研究大学院大学	Seikichi Matsuoka	Grad. Univ. Advanced Studies
51.	岡野 邦彦	電力中央研究所	Kunihiko OKANO	CRIEPI
52.	中野 守	クレイ・ジャパン・インク	Mamoru Nakano	Cray Japan Inc
53.	西村 泰太郎	成功大學	Yasutaro Nishimura	Cheng Kung Univ.(Taiwan)