

The 7th International West Lake
Symposium on Magnetic Fusion Research

PROGRAM

May 6-10, 2013
Hangzhou, China

Organized and Sponsored by

Institute for Fusion Theory and Simulation, Zhejiang University



浙江大學聚變理論與模擬中心

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Introduction to the 7th West Lake Symposium

Purpose

Significant progress has been achieved both domestically and internationally in the studies on turbulence and transport, energetic particle physics and MHD instabilities in magnetically confined fusion plasmas since the establishment of the ITER-China Program. The Institute for Fusion Theory and Simulation, Zhejiang University (IFTS-ZJU), believes that it is timely further enhance collaboration among domestic and international scientists, and thereby to promote further developments in these fields. It also aims to stimulate and encourage more junior scientists and students to engage in research on Magnetic Fusion.

Scientific Organization Committee

B. N. Wan (IPP/China, Chair), L. Chen (ZJU/China, Co-Chair), J. Q. Dong (ZJU/SWIP/China), X. R. Duan (SWIP/China), T. S. Hahm (SNU/South Korea), M. Kikuchi (JAEA/ JAPAN), C. X. Yu (USTC/China), F. Waelbroeck (UT-Austin/USA), X.G. Wang (PKU/China), G. Zhuang (HUST/China), F. Zonca (ENEA/Italy)

Local Organization Committee

Ma, Zhi-Wei (ZJU, Chair); Sheng, Zheng-Mao (ZJU, Co-Chair); Xiao Yong (ZJU); Xin Wang (ZJU), Zhi-Yong Qiu (ZJU)

Sponsor

Institute for Fusion Theory and Simulation, Zhejiang University.

Conference Form

Invited talks; Invited or Contributed posters.

Schedule:

May 5, 2013 (Sunday): Registration

May 6-10, 2013: Formal Meeting

Venue

The 7th West Lake Symposium will be held at Liutong Hotel (May. 6-10, except May. 8) and Anji International Holiday Hotel (May. 8).

Website

<http://ifts.zju.edu.cn/conference/>

Program for the 7th West Lake Symposium

Sunday 5/5/2013	
14:00-22:00	<i>Registration (Location: at the Lobby of Liutong Hotel)</i>
Monday 5/6/2013 Venue: Wanhui Hall of Liutong Hotel (六通宾馆万慧厅) 3F, Bldg 3	
Morning	
8:20-12:00	<i>Registration (Location: at Wanhui Hall)</i>
Session MM1 Chair Liu Chen	
9:00-10:00	Welcome Address by Vice President Song Group Photo
Session MM2 Chair Baonian Wan	
10:00-10:40	Mitsuru Kikuchi (JAEA) (Invited) Steady State Tokamak Research
10:40-11:20	Jiaqi Dong (SWIP/IFTS, ZJU) (Invited) Status of HL-2A Tokamak Experiment
11:20-12:00	Patrick H. Diamond (UC San Diego/ WCI, National Fusion Research Institute, Korea) (Invited) Formation and Evolution of Flux Jamitons and the Origin of the Staircase
12:00-14:00	<i>Buffet Location: Tianfujū(天府居) 1F, Bldg 6</i>
Afternoon	
Session MA1 Chair Mitsuru Kikuchi	
14:00-14:40	Baonian Wan (IPP) (Invited) Present status and prospective of EAST
14:40-15:20	Defeng Kong (USTC) Observation of nonlinear couplings between multiple kinetic geodesic acoustic modes in the edges of HT-7 and HL-2A plasmas
15:20-15:40	<i>Coffee Break</i>
Session MA2 Chair François Waelbroeck	
15:40-16:20	Xiaogang Wang (PKU) (Invited) Energetic particle generated $m/n=1$ sword modes in HL-2A plasmas

16:20-17:00	Youwen Sun (IPP) (Invited) RMP effect on toroidal plasma rotation
18:00-20:00	<i>Buffet</i>
Tuesday 5/7/2013 Venue: Wanhui Hall of Liutong Hotel (六通宾馆万慧厅) 3F, Bldg 3	
Morning	
Session TM1	Chair Patrick H. Diamond
9:00-9:40	François Waelbroeck (IFS, Univ. Texas) (Invited) Effect of suppressed and fulfilled islands on magnetic confinement
9:40-10:20	Yasuaki Kishimoto (Kyoto University) (Invited) Revisit of kinetic damping in Gyro-kinetic simulation and the role in multi-scale turbulent dynamics
10:20-10:40	<i>Coffee Break</i>
Session TM2	Chair Yasuaki Kishimoto
10:40-11:20	Shaojie Wang (USTC) (Invited) Nonlinear turbulence scattering term
11:20-12:00	Min Xu (SWIP) (Invited) Turbulence studies in HL-2A
12:00-14:00	<i>Buffet</i> <i>Check out</i>
Afternoon	
Session TA1	Poster Session
14:00-17:00	Zhongtian Wang (SWIP) Geodesic acoustic mode induced by energetic ions Qi-Ming Hu (HUST) Effect of rotating resonant magnetic perturbation field on tearing mode instability Bo Li (PKU) Interchange turbulence in a dipole confined plasma Jia Zhu (IFTS,ZJU) Nonlinear dynamics of toroidal Alfvén eigenmodes driven by energetic particles Wei Shen (IFTS,ZJU)

	<p>M3D-K simulations of energetic particle transport due to a sawtooth in Tokamaks Xin Wang (IFTS,ZJU)</p> <p>Nonlinear dynamics of BAE driven by energetic particles Deng Zhao(PKU)</p> <p>Research on missing transport near L-mode edge Di Hu(PKU)</p> <p>Current profile evolution during current disruption Ruibin Zhang (PKU)</p> <p>Energetic ion excited long-lasting “sword” modes in tokamak plasmas with low magnetic shear Gaimin Lu (SWIP)</p> <p>Kinetic shear Alfvén wave instability in the presence of impurity ions in tokamak plasmas Guangzhou Hao (SWIP)</p> <p>Electromagnetic torque on a toroidal resistive plasma Jianqiang Xu (SWIP)</p> <p>Generation and dynamics of blobs in the scrape-off layer of a tokamak Zhanhui Wang (SWIP)</p> <p>Numerical simulations of plasma fueling and ELM mitigation using SMBI Hao Wang (SWIP)</p> <p>Excitation threshold of energetic particle driven geodesic acoustic mode Zhoujun Yang (HUST)</p> <p>The diagnostics development on the J-TEXT tokamak Lei Chang (Australian National University)</p> <p>Gap eigenmode of radially localized helicon waves in a periodic structure Feng Wang (DLUT)</p> <p>Energetic Particle Effects on Non-resonant Internal Kink Mode in NSTX: stabilization of ideal kink and excitation of fishbone Limin Yu (East China Univ. Science and Technology)</p>
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	Numerical study of the compressibility effects on the reversed shear Alfvén eigenmode in tokamak plasma
17:30-19:00	<i>Buffet</i>
19:00	Take Bus to the second meeting site (AnJi)
Wednesday 5/8/2013 Venue: Shiji Hall of Anji International Holiday Hotel (安吉国际假日酒店世纪会议厅) 6F	
Morning	
Session WA1	Chair Yong-Su Na
9:00-9:40	Linjin Zheng (IFS, Univ. Texas) (Invited) Investigation of the edge localized modes, blob transport, and edge harmonic oscillations
9:40-10:20	Aihui Zhao (Tsinghua Univ.) (invited) Parameter Study of Parametric Instabilities during Lower Hybrid Waves Injection into Tokamaks
10:20-10:40	<i>Coffee Break</i>
Session WA2	Chair Zhengxiong Wang
10:40-11:20	Yong-Su Na (Seoul National University) (Invited) Numerical Modelling of Toroidal Momentum Transport Considering Mode Dependency on the Pinch Term
11:20-12:00	Lu Wang (HUST) (Invited) Gyrokinetic turbulent acceleration of parallel rotation in tokamak plasmas
12:00-14:00	<i>Buffet</i> <i>Location: Shangdao coffee (上岛咖啡) 1F</i>
Afternoon	
17:30-19:00	<i>Banquet</i>
19:00	Return to Hangzhou

Thursday 5/9/2013		Venue: Jusi Hall of Liutong Hotel (六通宾馆聚思厅) 2F, 3Bldg
Morning		
Session TM1		Chair Sergio Briguglio
9:00-9:40	Xuantong Ding (SWIP) (Invited) Alfvén wave and energetic-particle physics in HL-2A	
9:40-10:20	Fuvio Zonca (ASSOCIAZIONE EURATOM-ENEA) (Invited) Nonlinear dynamics of phase-space zonal structures and energetic particle physics	
10:20-10:40	<i>Coffee Break</i>	
Session TM2		Chair Jiaqi Dong
10:40-11:20	Liu Chen (IFTS, ZJU) (Invited) On Nonlinear Geodesic Acoustic Modes in Tokamak Plasmas	
11:20-12:00	Sergio Briguglio (ENEA, CR Frascati) (Invited) Nonlinear dynamics of Alfvén modes: new insights from phase-space numerical diagnostics	
12:00-14:00	<i>Buffet</i>	
Afternoon		
Session TA1		Chair Xuantong Ding
14:00-14:40	Guosheng Xu (IPP) (Invited) Study of L-I-H and single-step L-H transitions with a new dual gas puff imaging system and reciprocating Langmuir probes in EAST	
14:40-15:20	Zhengxiong Wang (DLUT) (Invited) Simulation of $q=1$ high-order harmonic modes during sawtooth crashes in tokamak plasmas	
15:20-15:40	<i>Coffee Break</i>	
Session TA2		Chair Fuvio Zonca
15:40-16:20	Lei Ye (IPP) (Invited) Numerical simulation of geodesic acoustic modes in a multi-ion system	

16:20-17:00	Zhipeng Chen (HUST) (Invited)The recent experimental work on the J-TEXT tokamak
17:30-19:00	<i>Buffet</i>
19:00	Evening Show: Impression of West Lake (Directed by Zhang Yi-Mou)
Friday 5/10/2013 Venue: Jusi Hall of Liutong Hotel (六通宾馆聚思厅) 2F, 3Bldg	
Morning	
Session FM1	Chair Linjin Zheng
9:00-9:40	Zhixin Lu (PKU) (invited)The mixed WKB-full-wave approach and its application to lower hybrid wave propagation and absorption
9:40-10:20	Quanming Lu (USTC) (Invited) Electron dynamics in collisionless magnetic rconnection
10:20-10:40	<i>Coffee Break</i>
Session TM2	Chair Guosheng Xu
10:40-11:20	Zhiyong Qiu (IFTS, ZJU) (Invited) Spontaneous Excitation of Geodesic Acoustic Mode by Toroidal Alfven Eigenmodes
11:20-12:00	Closing Ceremony