

Gyrokinetic Particle Simulation: A Symposium in Honor of Wei-li Lee

Monday 7/18

8:15-8:30	Continental breakfast: Emerald DE	
Session I	Edge Turbulence , Zhihong Lin, UCI	
8:30-9:00	Scott Parker U. Colorado	<i>Progress on Gyrokinetic Simulation of the Tokamak Edge</i>
9:00-9:30	Yong Xiao Zhejiang U.	<i>Gyrokinetic simulation of kinetic ballooning mode in tokamaks</i>
9:30-10:00	C-S Chang PPPL	<i>XGC particle simulation of tokamak edge plasma</i>
10:00-10:30	Xueqiao Xu LLNL	<i>Towards understanding the role of turbulence on scaling of divertor heat flux profile widths</i>
10:30-11:00	Coffee break	
Session II	Electromagnetic Simulation , Calvin Lau, UCI	
11:00-11:30	Richard Sydora U. Alberta	<i>Gyrokinetic Simulation of Drift-Alfven Waves and Heat Transport in Magnetized Temperature Filaments</i>
11:30-12:00	Alberto Bottino Max-Planck IPP	<i>Global electromagnetic Monte Carlo - finite element simulations</i>
12:00-12:30	Jian Bao UCI / PKU	<i>Electromagnetic simulation with kinetic electrons</i>
12:30-14:00	Lunch	
Session III	Energetic Particle I , Sean Dettrick, TAE	
14:00-14:30	Alexey Mishchenko Max-Planck IPP	<i>Gyrokinetic PIC simulations of global electromagnetic modes</i>
14:30-15:00	Guoyong Fu PPPL	<i>Kinetic-MHD Hybrid Simulations of Energetic Particle Interaction with MHD</i>
15:00-15:30	Yaqi Liu PKU / UCI	<i>Nonlinear Interaction between BAE and BAAE</i>
15:30-16:00	Coffee break	
Session IV	HPC for PIC I , Julian Cummings, MSC Software	
16:00-16:30	William Tang PU / PPPL	<i>Gyrokinetic Simulations on Top Supercomputers Worldwide</i>
16:30-17:00	Scott Klasky ORNL	<i>I stream you stream we all stream for icestream: The intelligent co-design of an environment for streaming data</i>
17:00-17:30	Toshiki Tajima UCI / TAE	<i>Evolution of kinetic modelling of tokamak plasma in honor of Dr. W. W. Lee</i>
18:00-20:30	Banquet	

Tuesday 7/19

8:15-8:30	Continental breakfast: Emerald DE	
Session V	Gyrokinetic Formulation , Liu Chen, UCI / Zhejiang U.	
8:30-9:00	Alain Brizard Saint Michael's College	<i>Recent progress in gyrokinetic theory</i>
9:00-9:30	Andris Dimits LLNL	<i>Conservation Laws for Gyrokinetics in Large-Perturbation and Strong-Flow Orderings</i>

9:30-10:00	Eric Sonnendrucker Max-Planck IPP	<i>Geometric formulation of gyrokinetic theory</i>
10:00-10:30	Fulvio Zonca ENEA C.R. Frascati	<i>Gyrokinetic theory of phase space transport</i>
10:30-11:00	Coffee break	
Session VI	FRC & HPC for PIC II, Ge Dong, PPPL	
11:00-11:30	Daniel Fulton TAE	<i>Gyrokinetic simulation of driftwave instability in field-reversed configuration</i>
11:30-12:00	Stephane Ethier PPPL	<i>Computational advances in Gyrokinetic PIC method</i>
12:00-12:30	Tom Gibbs NVIDIA	<i>GTC on GPU Using OpenACC</i>
12:30-14:00	Lunch	
Session VII	3D Physics & Synthetic Diagnostics, Sam Taimourzadeh, UCI	
14:00-14:30	Donald Spong ORNL	<i>Gyrokinetic analysis of energetic particle instabilities in 3D systems</i>
14:30-15:00	Ihor Holod LLNL / UCI	<i>Effect of RMP on Microturbulence in Tokamak H-Mode Pedestal</i>
15:00-15:30	Lei Shi PPPL	<i>Synthetic Diagnostics Platform for Fusion Plasmas</i>
15:30-16:00	Coffee break	
Session VIII	Energetic Particle II, Alberto Bottino	
16:00-16:30	Yang Chen U. Colorado	<i>Nonlinear gyrokinetic simulation of multiple-n alpha-driven Alfvén eigenmodes</i>
16:30-17:00	Yasushi Todo NIFS	<i>Recent progress of kinetic MHD hybrid simulations of energetic-particle driven instabilities</i>
17:00-17:30	Wenlu Zhang IOP, CAS	<i>Gyrokinetic Particle Simulation of Fast Electron Driven Beta-induced Alfvén Eigenmodes</i>
Wednesday 7/20		
8:30-9:00	Continental breakfast: Aliso Beach A	
Session IX	Kinetic MHD, Scott Parker	
9:00-9:30	Joseph McClenaghan GA / ORAU	<i>Gyrokinetic simulation of internal kink modes</i>
9:30-10:00	Dongjian Liu SCU	<i>Gyrokinetic Simulation of Resistive and Collisionless Tearing Modes</i>
10:00-10:30	Wei-li Lee PPPL	<i>Equilibrium Potential Well due to Finite Larmor Radius Effects at the Tokamak Edge</i>
10:30-11:00	Coffee break	
11:00-12:15	Discussion I Andris Dimits	<i>Conservation laws in more general ordering and for long time simulation</i>
12:15-14:00	Lunch	
14:00-17:00	Discussion II Guoyong Fu	<i>Gyrokinetic formulation for long wavelength MHD mode</i>

Thursday 7/21		
8:30-9:00	Continental breakfast: Aliso Beach A	
9:00-10:15	Discussion III Alain Brizard	<i>Gyrokinetic formulation including compressible magnetic perturbations in high-beta plasmas</i>
10:15-10:45	Coffee break	
10:45-12:00	Discussion IV Fulvio Zonca	<i>Hybrid gyrokinetic-electron, fully kinetic-ion formulation</i>
12:00-14:00	Lunch	
14:00-15:15	Discussion V Eric Sonnendrucker	<i>Semi-Lagrangian method</i>
15:15-15:45	Coffee break	
15:45-17:00	Discussion VI Richard Sydora	<i>Gyrokinetic particle simulation of electromagnetic turbulence</i>
Friday 7/22		
8:30-9:00	Continental breakfast: Aliso Beach A	
9:00-10:15	Discussion VII Wei-li Lee	<i>Multiphysics/multiscale coupling of microturbulence with MHD equilibria</i>
10:15-10:45	Coffee break	
10:45-12:00	Discussion VIII Zhihong Lin	<i>Numerical issues in gyrokinetic simulation with open field line, separatrix, stochasticity, and 3D equilibria</i>
12:00	Meeting adjourn	