2018 US-JAPAN WORKSHOP

Center for Energy Research

On Theory and Simulations of High-Field and High Energy Density Physics

Nov. 3 - 4, 2018 | Hilton Portland Downtown | Portland, OR

DAY 1

Saturday, November 3, 2018

time	duration		speaker	topic
1:00 PM	0:10		Arefiev/Sentoku	Opening remarks
1:10 PM	0:25	talk #1	Remington	Opportunities for exploring unique regimes of science on high energy, high intensity lasers
1:35 PM	0:25	talk #2	Johzaki	Magnetic field guiding of electron beam for reduction of ignition requirement
2:00 PM	0:25	talk #3	Han Wen	Large scale particle-in-cell simulations of laser plasma interactions with beam smoothing
2:25 PM	0:15	discussion		
2:40 PM	0:25	talk #4	Sentoku	Ionization dynamics and high Z ion acceleration physics with ultra-intense short pulse laser light
3:05 PM	0:25	talk #5	Weichman	High energy and well-collimated ion beam generation by laser-driven magnetized electron sheath acceleration with kilotesla magnetic fields
3:30 PM	0:25	talk #6	Hata	Theory and simulation for the acceleration of high charge-state heavy ion by an ultra-intense laser
3:55 PM	0:15	discussion		
4:10 PM	0:10	coffee break		
4:20 PM	0:25	talk #7	Tammy Ma	Recent experimental TNSA proton acceleration results from the NIF-ARC
4:45 PM	0:25	talk #8	Iwata	Power law energy distribution formation in relativistic over-picosecond laser-foil interactions
5:10 PM	0:25	talk #9	Gong	Energetic electron dynamics in a hollow structured target irradiated by intense laser fields
5:35 PM	0:15	discussion		
5:50 PM				**END OF DAY 1**

DAY 2

Sunday, November 4, 2018

time	duration		speaker	topic
8:30 AM	0:10		Arefiev/Sentoku	Opening remarks
8:40 AM	0:25	talk #1	Nagatomo	Modeling of kinetic effect in laser plasma for hydrodynamic simulation
9:05 AM	0:25	talk #2	Rinderknecht	Ion-Velocity Structure in Strong Collisional Plasma Shocks
9:30 AM	0:25	talk #3	Howard	Photon Acceleration in the Ionization Front of a Flying Focus
9:55 AM	0:25	talk #4	Shiroto	SPUTNIK: charge-momentum-energy-conserving relativistic Vlasov–Maxwell simulation
10:20 AM	0:20	discussion		
10:40 AM	0:10	coffee break		
10:50 AM	0:25	talk #5	Joohwan Kim	Acceleration of proton and electron from multi-picosecond, kilojoule lasers
11:15 AM	0:25	talk #6	Higashi	Heating a solid isochorically over keV temperature by a multi-picosecond intense laser light
11:40 AM	0:25	talk #7	Peebles	Characterizing Magnetic and Electric Fields from Laser-Driven Coils Using Axial Proton Probing
12:05 PM	0:15	discussion		
12:20 PM	**1:00**	**LUNCH**		
1:20 PM	0:25	talk #8	Asahina	Langevin-based Coulomb collision algorithm extended for arbitrary momentum distribution in PIC simulations
1:45 PM	0:25	talk #9	Stark	Constraints on PIC simulations of laser-ion acceleration in the transparency regime
2:10 PM	0:25	talk #10	Nilson	High-Resolving-Power, Streaked X-Ray Spectroscopy of Picosecond-Scale Relativistic Laser–Matter Interactions on the OMEGA EP Laser System
2:35 PM	0:25	talk #11	Sano	Direct Ion Heating in Overdense Plasmas by a Standing Whistler Wave
3:00 PM	0:20	discussion		
3:20 PM	0:10	coffee break		
3:30 PM	0:25	talk #12	Albert	Modelling and experiments of x-ray sources from laser-wakefield acceleration on ps, kJ-class lasers
3:55 PM	0:25	talk #13	Taguchi	Competition between resistive and non-resistive Weibel instability under a strong external magnetic fie
4:20 PM	0:25	talk #14	Sunahara	Efficient Laser Acceleration of Deuteron Ions Through Optimization of Pre-Plasma Formation for Neutron Source Development
4:45 PM	0:25	talk #15	Campbell	Measurements of the generation and dynamics of strong magnetic fields in relativistic laser-solid interactions
5:10 PM	0:20	discussion		
5:30 PM				**WORKSHOP ADJOURNED**