

HEDS2021 : On-line/In personl @ Osaka University [I-Build 4F R420Conference Hall, Institute of Laser Engineering]

19-Apri-21, Mon.

9:00			R. Kodama	Osaka U	OPENING REMARK
9:10	(I)	HEDS-1-01	S. Isayama	Kyushu U	Controlled injection of relativistic protons in wake-field by using dual-laser pulses
9:35	(I)	HEDS-1-02	M. Iwamoto	Kyushu U	Wakefield excitation and associated particle acceleration in relativistic collisionless shocks
10:00	(I)	HEDS-1-03	Y. Kishimoto	Kyoto U	High energy density plasmas produced by the interaction between high intensity laser and structured medium ~A new platform studying magnetic confined plasmas using laser~
					COFEE BREAK
10:45	(I)	HEDS-2-01	G. Swadling	LLNL	Investigating kinetic-scale current filamentation dynamics and associated magnetic fields in interpenetrating plasmas
11:10	(I)	HEDS-2-02	M. Kanasaki	Kobe U	Applications of solid state nuclear track detectors for measurements of laser-accelerated ions
11:35		HEDS-2-03	T. Pikuz	Osaka U	X-ray spectroscopy of relativistic plasma with controlled preplasma formation at J-KAREN-P experiments
					LUNCH BREAK
13:00	(I)	HEDS-3-01	K. Morishima	Nagoya U	Cosmic ray muon imaging of Khufu's Pyramid with nuclear emulsions
13:25	(I)	HEDS-3-02	A. Tokiyasu	Tohoku U	A scintillator-based detector system to measure GeV class ions
13:50		HEDS-3-03	T. Asai	Kobe U	A new measurement method for laser-accelerated sub-GeV protons utilizing multiple Coulomb scattering in an emulsion cloud chamber
14:05	(I)	HEDS-3-04	M. Murakami	Osaka U	Generation of megatesla magnetic fields by microtube implosion
14:30		HEDS-3-05	T. Morita	Kyushu U	Experimental investigation of magnetic reconnection in laser-driven self-generated magnetic field
					COFEE BREAK
15:30	(I)	HEDS-4-01	M. Hoshino	U Tokyo	Fast particle acceleration mechanisms in astrophysical and laboratory astrophysics
15:55	(I)	HEDS-4-02	Z. Yang	CAS	Microstructures at near-Sun solar wind perpendicular interplanetary shocks: Predictions for Parker Solar Probe and Solar Orbiter
16:20	(I)	HEDS-4-03	J. Niemiec	PAS	Kinetic modeling of electron pre-acceleration at low Mach number shocks in merging galaxy clusters
16:45	(I)	HEDS-4-04	B. Lembege	LATMOS	Energy spectra measured by New Horizon Mission around an interplanetary shock near Pluto: PIC simulations versus in situ experimental results
17:10	(I)	HEDS-4-05	N. Dover	Imperial C London	Electron heating and ion acceleration in ultrarelativistic laser-solid interactions
17:35		HEDS-4-06	S.N. Ryazantsev	JIHT RAS	X-ray spectroscopy evidence of solid-density ultra-relativistic laser plasma in renewable micron-scale cryogenic clusters targets

20-Apri-21, Tue

9:00	(I)	HEDS-5-01	S. Kisaka	Hiroshima U	The electromagnetic cascade in neutron star and black hole magnetospheres
9:25	(I)	HEDS-5-02	Y. Akaike	Waseda U	Direct cosmic-ray measurements with CALET on the International Space Station
9:50	(I)	HEDS-5-03	Y. Sumitomo	Nihon U	An experimental challenge with accelerator and plasma to astrophysical fast radio bursts
					COFEE BREAK
10:35		HEDS-5-01	R. Yamazaki	Aoyama Gakuin U	Formation of a supercritical collisionless shock in a magnetized uniform plasma at rest
10:50		HEDS-5-02	K. Sakai	Osaka U	Collective Thomson scattering as a diagnostics for non-equilibrium plasmas
11:05		HEDS-5-03	A. Pirozhkov	QST	Multiple diagnostics in laser-plasma experiment at $\sim 10^{22}$ W/cm ²
11:20		HEDS-5-04	S.J. Tanaka	Aoyama Gakuin U	Experimental observation of induced Compton scattered radiation with J-KAREN-P laser
					LUNCH BREAK
13:00					OPIC PLENARY SESSIONS

15:30	(I)	HEDS-7-01	C.X. Mazelle	IRAP	MAVEN observations of the Martian bow shock and foreshock
15:55	(I)	HEDS-7-02	W. Yao	LULI	Laboratory evidence for proton energization by collisionless shock surfing
16:20		HEDS-7-03	B. Martinez	U Lisboa	Relativistic beam formation and magnetisation driven by the propagation of a gamma-ray beam in a pair plasma
16:35	(I)	HEDS-7-04	G. Sarri	Queen's U Belfast	High-field QED experiments with high-power lasers: current status and next steps
17:00	(I)	HEDS-7-05	K. Seto	ELI-NP	Theoretical studies on a radiating electron in high-intensity laser pulse
17:25		HEDS-7-06	R.L. Singh	Queen's U Belfast	Generation of plasmas in the extreme photoionization-dominated regime using the VULCAN laser
17:40		HEDS-7-07	A.D. Dearling	U York	Magnetised transport in a laser generated plasma driven by heat flow

21-Apri-21, Wed

9:00	(I)	HEDS-8-01	S.R. Totorica	Princeton U	Nonthermal electron and ion acceleration in laser-driven magnetic reconnection
9:25	(I)	HEDS-8-02	S. Zenitani	Kobe U	Particle dynamics in collisionless magnetic reconnection
9:50	(I)	HEDS-8-03	J. Zhong	Beijing Normal U	Forming a long current sheet magnetic reconnection with intense lasers COFEE BREAK
10:35	(I)	HEDS-9-01	K.F.F. Law	U Tokyo	Study of particle energy energization from laser-driven magnetic reconnection experiment
11:00	(I)	HEDS-9-02	G. Rigon	Nagoya U	Exploring the late evolution of a Rayleigh-Taylor unstable system – an experimental insight on turbulence –
11:25		HEDS-9-03	M.J.-E. Manuel	GA	B-field Generation by the ion-Weibel instability in interpenetrating Plasmas of CH, Al, and Cu
11:40		HEDS-9-04	S. Tomita	Tohoku U	Magnetic field amplification by turbulent dynamo in relativistic collisionless shocks LUNCH BREAK
13:00	(I)	HEDS-10-01	S. Takasao	Osaka U	Explosive phenomena on the Sun and protostars
13:25	(I)	HEDS-10-02	Y. Kawazura	Tohoku U	Ion versus electron heating in compressively driven astrophysical gyrokinetic turbulence
13:50	(I)	HEDS-10-03	M. Shoda	NAOJ	Direct numerical simulations of MHD turbulence in the solar wind
14:15	(I)	HEDS-10-04	Y. Nariyuki	U Toyama	On non-equilibrium Alfvénic fluctuations in the solar wind
14:40	(I)	HEDS-10-05	M. Nakata	NIFS	Magnetic-geometry-induced activation of zonal flows in magnetically confined plasma turbulence
15:05		HEDS-10-06	T. Ohguri	Nagoya U	Interactions between non-isotropic electroconvection turbulence and mean flows COFEE BREAK
15:50	(I)	HEDS-11-01	Y. Sakawa	Osaka U	Laboratory astrophysics using large-scale laser systems-Formation of Weibel-instability mediated collisionless shock
16:15	(I)	HEDS-11-02	G. Liao	CAS	Extreme terahertz bursts generated from relativistic laser-foil interactions
16:40	(I)	HEDS-11-03	C.-H.R. Pai	National Central U	Tunable relativistic single-cycle infrared pulses generated from laser plasma interactions
17:05	(I)	HEDS-11-04	K. Manchikanti	TIFR	Relativistic plasma at a hundredth of relativistic intensity
17:30			Y. Sakawa		CLOSING REMARK

Poster

HEDS-P-01	N. Gupta	Lovely Prof U	Self focusing and Gouy phase shift of quadruple Gaussian laser beams in thermal quantum plasma with axial density ramp
HEDS-P-02	Y. Luo	U Tokyo	Screening effect in the magnetized plasma and its impact on weak interactions
HEDS-P-04	T. Sano	Osaka U	Plasma heating via the interaction of whistler waves
HEDS-P-05	S. Matsuo	Kyushu U	Time-evolution of the magnetic field structure in laser-driven magnetic reconnection measured by proton radiography
HEDS-P-06	S. Ghosh	UCSD	Characterizing Weibel instability in counter-propagating plasma flows
HEDS-P-07	S. Matsukiyo	Kyushu U	Study on magnetized collisionless shocks using PIC simulation and laser experiment
HEDS-P-08	I. Singh	IIT Delhi	Turbulent magnetic field amplification relevant to astrophysical scenarios due to high-power laser plasma interaction
HEDS-P-09	H. Dewan	IIT Delhi	Simulation studies for turbulence generation and vortex formation in high beta plasma by nonlinear interaction of Extraordinary Laser and 3-D KAW
HEDS-P-10	T. Minami	Osaka U	Investigation on ion acceleration with graphene as a nanolayer target using ELI-NP laser