

Working Group 6: Laser-Plasma Acceleration of Ions

Monday June 11		Tuesday June 12		Wednesday June 13		Thursday June 14	
Morning II 10:30-12:00	PLENARY SESSION 2	WG6: Status of Experiments		Joint WG2+WG6: Numerical Simulations of LPIA		WG6: Laser Traget / Pulse Tayloring	
		M. Nischiuchi (JAEA) (invited)--Proton acceleration up to 40 MeV with ultra-high intensity high-contrast Ti: sapphire compact laser	30 min	Y. Sentoku (UN, Reno) (invited)--Numerical modeling of proton acceleration by micro-focusing of ultra-intense laser pulses	30 min	G. Schaumann (UDarmstadt)--Target fabrication for high-power laser experiemnts	15 min
		O. Jackel (HI, Jena)--Foil thickness scans at JETI and POLARIS from TNSA to radiation pressure assisted ion acceleration	15 min	F. Fiuzza (IST)--Full scale modeling of ion acceleration from laser-solid interactions	15 min	G. Turchetti (UBologna)--Transport of laser generated protons and post-acceleration by a compact LINAC	15 min
		A. Zigler (Univ. Jerusalem)--Laser acceleration of protons using nanostructured plasmas	15 min	E. d'Humieres (UBordeaux/CEA)--Laser-ion acceleration in the ultra-high intensity regime	15 min	E. d'Humieres (Ubordeaux/CEA)--Laser ion acceleration scaling laws with low density targets	15 min
		S. Buffechoux (LULI)--Recent experimental results on laser-driven proton acceleration and concepts toward higher-energy beam	15 min	H.-C. Wu (LANL)--Review of multidimensional large-scale kinetic simulations and physics validation of ion acceleration in relativistic laser-matter acceleration	15 min	M. Helle (NRL) --Laser ion acceleration from sub-critical density gas foil	15 min
						W.S. Hur (UNIST)--Pulse shaping by relativistic trasparency in overdense plasma and its applications in particle acceleration	15 min
						X. Yan (Peking U)--Laser-driven plasma lens for pulse shaping/cleaning and ion acceleration	15 min
		Discussion	15 min	Discussion	15 min		
LUNCH 12:00-1:30							
Afternoon I 1:30-3:00	PLENARY SESSION 3	WG6: Prospects of Medical Applications		WG6: Ion Driven Fast Ignition		WG6: Discussion: From a Single-Shot Experiment to a 200 MeV/u Plasma Accelerator (Mediators: ST/MH)	
		M Roth (TUD/LANL) (invited)--Laser-driven ion accelerator as an advanced source for medical applications	30 min	J. Fernandez (LANL)(invited)--Towards isohoric heating with ions: from solid plasma interactions to fast ignition	30 min	Panel Discussion	60 minutes
		F. Fiuzza (IST/UCLA)--200 MeV monoenergetic protons produced by a laser-driven collisionless shocks	15 min	S. Buffechoux (LULI)(invited)--Recent experimental results on focusing of high-energy density proton beams and their interaction with solid targets	30 min		
		D. Keifer (LMU,MPQ)--Laser-ion acceleration and biomedical application with shortest pulses	15 min	Kirk Flippo (LANL)--High energy density science and laser particle acceleration: from isotopes to fusion	15 min		
		Z.-M Sheng (JTU)--Two-stage acceleration of protons from relativistic laser-solid interaction	15 min				
			Discussion	15 min	Discussion	15 min	
Break 3:00-3:30							
Afternoon II 3:30-5:00	WG6: LPIA		Joint WG6/WG8: Laser Drivers for Ion Accelerators		WG6: Radiation Pressure Acceleration		Optional Short Excursions
	Opening remarks/WG6 goals --Sergei Tochitsky (UCLA), Manuel Hegelich (LANL)	15 min	K. Zeil (HZDR) (invited)--High-power laser development projects for laser particle acceleration at HZDR	30 min	Open questions of RPA (Manuel Hegelich)	10 min	
	A. Maksimchuk (UM)--Paramount deuteron acceleration and generation of neutron beams using high-intensity short laser pulses	15 min	M. Polyanskiy (BNL) (invited)--Next generation ultrafast CO2 lasers for strong field science	30 min	S. Bulanov (UC Berkeley)-Optimized laser pulse profile for efficient radiation pressure acceleration of ions	15 min	
	K. Zeil (HZDR)--Prompt pre-thermal laser ion sheath acceleration with ultra-short laser pulses	15 min	E. Gaul (National Energetics) (invited)--High pulse rate, high-energy, high-power glass lasers	30 min	F. Dollar (UM)--Recent experiemntal results on short pulse ion acceleration at intensities above 10e21W/cm2	15 min	
	I. Pogorelsky (BNL)--Optical probing of shocks driven into over-critical plasmas by laser hole-boring	15 min			V. Hudik (UT, Austin)--Rayleigh-Taylor instability in RPA regime of the monoenergetic ion acceleration by the laser pulse	15 min	
	S. Gillard --High-proton energies from laser inetraction with microcone and reduced mass target	15 min			S. Steinke (MBI/LBNL)--Stable laser ion acceleration with ultra-short pulses	15 min	
		Discussion	15 min		Discussion	20 min	
Evening	Reception		WG6 POSTERS [listed separately]		Banquet		Riverboat Cruise