

# IAS Program on High Energy Physics 2021

## Mini-workshop on Accelerator: Plasma Acceleration

(HKT | GMT +8) January 14 - 15 at 13:00 - 16:00 & 21:00 - 24:00

Format of Talk: 18-min presentation + 2-min Q&A / 25-min presentation + 5-min Q&A / 35-min presentation + 5-min Q&A / 45-min presentation + 5-min Q&A

	January 14, 2021 (Thursday)			January 15, 2021 (Friday)			
	Chair: Wei LU (Tsinghua University)			Chair: Jie GAO (Institute of High Energy Physics, Chinese Academy of Sciences)			
	Title	Speaker		Title	Speaker		
Afternoon	13:00 - 13:50	Perspectives on Plasma-based Accelerators	Chandrashekar JOSHI (University of California, Los Angeles)	13:00 - 13:50	Plasma Wakefield Acceleration: Current Status and Roadmap to First Applications and the Energy Frontier	Mark J. HOGAN (SLAC National Accelerator Laboratory)	
	13:50 - 14:20	Theory and Computational Challenges in Plasma-accelerator Research	Warren MORI (University of California, Los Angeles)	13:50 - 14:10	Positron Acceleration in Plasma Wakefields	Spencer GESSNER (SLAC National Accelerator Laboratory)	
	14:20 - 14:40	Energy-spread Preservation in a Plasma Accelerator at FLASHForward	Carl LINDSTROM (Deutsches Elektronen-Synchrotron (DESY))	14:10 - 14:30	Generation of Single Cycle Tunable Radiation Pulses from THz to Mid IR Using Frequency Downshifting in Plasma Wakes	Zan NIE (University of California, Los Angeles)	
	14:40 - 14:50	Break		14:30 - 14:40	Break		
		Chair: Chandrashekar JOSHI (University of California, Los Angeles)			Chair: Mark J. HOGAN (SLAC National Accelerator Laboratory)		
		Title	Speaker		Title	Speaker	
	14:50 - 15:30	High Energy Plasma-based Injector for Circular Electron-positron Collider (CEPC) and Beyond	Wei LU (Tsinghua University)	14:40 - 15:10	Laser-plasma Electron Acceleration towards a Compact XFEL in Japan	Masaki KANDO (National Institutes for Quantum and Radiological Science and Technology)	
	15:30 - 15:50	High Transformer Ratio Electron Acceleration for CEPC Plasma Injector	Xiaoning WANG (Institute of High Energy Physics, Chinese Academy of Sciences)	15:10 - 15:40	Laser Plasma Acceleration and its Applications	Jiansheng LIU (Shanghai Normal University)	
15:50 - 16:10	Underdense Passive Plasma Lenses for Focusing Electron Beams	Christopher DOSS (University of Colorado, Boulder)	15:40 - 16:00	Plasma Accelerator Injector Studies at IHEP	Ming ZENG (Institute of High Energy Physics, Chinese Academy of Sciences)		
Evening		Chair: Weiming AN (Beijing Normal University)			Chair: Baifei SHEN (Shanghai Normal University)		
		Title	Speaker		Title	Speaker	
	21:00 - 21:50	The EuPRAXIA Project for a European Research Infrastructure	Ralph Wolfgang ASSMANN (Deutsches Elektronen-Synchrotron (DESY))	21:00 - 21:40	AWAKE: A Plasma Wakefield Accelerator Driven by a Proton Bunch	Patric MUGGLI (Max Planck Institute for Physics)	
	21:50 - 22:10	Polarized Beams from Plasma Accelerators	Markus BUESCHER (Forschungszentrum Jülich)	21:40 - 22:00	The EupPRAXIA@SPARC_LAB Project and Related R&D Activities at LNF	Massimo FERARIO (The Italian National Institute for Nuclear Physics)	
	22:10 - 22:30	Positron Acceleration in a Hollow Channel Plasma Wakefield Accelerator	Shiyu ZHOU (Tsinghua University)	22:00 - 22:30	EPAC - A New, Advanced Facility for Applications of Laser-driven Accelerators	Paramel Pattathil RAJEEV (Rutherford Appleton Laboratory)	
	22:30 - 22:40	Break			22:30 - 22:40	Break	
		Chair: Ralph Wolfgang ASSMANN (Deutsches Elektronen-Synchrotron (DESY))			Chair: Patric MUGGLI (Max Planck Institute for Physics)		
		Title	Speaker		Title	Speaker	
22:40 - 23:10	Recent Progress of Laser Wakefield Acceleration Studies at Shanghai Jiao Tong University	Min CHEN (Shanghai Jiao Tong University)	22:40 - 23:10	Driving Positron Beam Acceleration with Coherent Transition Radiation	Baifei SHEN (Shanghai Normal University)		
23:10 - 23:40	Recent Progress on the Laser-driven High-energy Proton/Heavy Ion Acceleration	Wenjun MA (Peking University)	23:10 - 23:30	Recent Progress on Quasi-static PIC Code: QuickPIC and QPAD	Weiming AN (Beijing Normal University)		
23:40 - 24:00	Energy Dechirper for a Electron Beam Using a Hollow Channel Plasma	Shuang LIU (Tsinghua University)	23:30 - 24:00	MeV Hard X-ray Micro-spot Sources Based on Laser Wake-field Accelerator and 3D Imaging Applications	Yuqiu GU (China Academy of Engineering Physics)		