

IAS Program on High Energy Physics 2022

Mini-workshop on Accelerator Physics: Key Beam Physics and Technologies Issues for Colliders

(HKT | GMT +8) January 13-14, 2022 at 15:00 - 18:50 & 20:00 - 23:10

Format of Talk: 20-minute presentation

	January 13, 2022 (Thursday)				January 14, 2022 (Friday)				
	Chair: Eugene LEVICHEV (Budker Institute of Nuclear Physics (BINP))				Chair: Jie GAO (Institute of High Energy Physics, Chinese Academy of Sciences)				
	Title	Speaker			Title	Speaker			
After-noon	15:00 - 15:20	Beam Physics Frontier Problems	Frank ZIMMERMANN (CERN)	15:00 - 15:20	CEPC Mechanics Design	Haijing WANG (Institute of High Energy Physics, Chinese Academy of Sciences)			
	15:20 - 15:40	Super-KEKB: What Have We Learned	Makoto TOBIYAMA (High Energy Accelerator Research Organization (KEK))	15:20 - 15:40	CEPC Injection/ Extration and Timing	Xiaohao CUI (Institute of High Energy Physics, Chinese Academy of Sciences)			
	15:40 - 16:00	CEPC Accelerator Status towards TDR	Jie GAO (Institute of High Energy Physics, Chinese Academy of Sciences)	15:40 - 16:00	CEPC Collective Instabilities Studies	Na WANG (Institute of High Energy Physics, Chinese Academy of Sciences)			
	16:00 - 16:20	CEPC Collider Lattice Optimization Design	Yiwei WANG (Institute of High Energy Physics, Chinese Academy of Sciences)	16:00 - 16:20	On Polarization and Energy Calibration in e+e- Colliders	Sergei NIKITIN (Budker Institute of Nuclear Physics (BINP))			
	16:20 - 16:40	CW Beam Physics Analysis	Demin ZHOU (High Energy Accelerator Research Organization (KEK))	16:20 - 16:40	CEPC Polarization	Zhe DUAN (Institute of High Energy Physics, Chinese Academy of Sciences)			
	16:40 - 16:50	Break			16:40 - 16:50	Break			
		Chair: Yuhui LI (Institute of High Energy Physics, Chinese Academy of Sciences)				Chair: Winfried DECKING (Deutsches Elektronen-Synchrotron (DESY))			
		Title	Speaker		Title	Speaker			
	16:50 - 17:10	Beam-beam Effects in Colliders – An Overview	Tatiana PIELONI (École polytechnique fédérale de Lausanne (EPFL))	16:50 - 17:10	CEPC Collider Ring and Booster Magnets R&D	Mei YANG (Institute of High Energy Physics, Chinese Academy of Sciences)			
	17:10 - 17:30	VEPP-2000 Experience with Round Beams	Dmitry B. SHWARTZ (Budker Institute of Nuclear Physics (BINP))	17:10 - 17:30	CEPC Vacuum System R&D	Yongsheng MA (Institute of High Energy Physics, Chinese Academy of Sciences)			
	17:30 - 17:50	CEPC Beam-beam Effects Studies	Yuan ZHANG (Institute of High Energy Physics, Chinese Academy of Sciences)	17:30 - 17:50	SuperKEKB Control System and Operation	Kaji HIROSHI (High Energy Accelerator Research Organization (KEK))			
	17:50 - 18:10	SuperKEKB RF Gun Injector Design and Operation	Rui ZHANG (High Energy Accelerator Research Organization (KEK))	17:50 - 18:10	CEPC Control System	Gang LI (Institute of High Energy Physics, Chinese Academy of Sciences)			
18:10 - 18:30	CEPC Linac Injector Design	Cai MENG (Institute of High Energy Physics, Chinese Academy of Sciences)	18:10 - 18:30	CEPC Booster+damping Ring Design	Dou WANG (Institute of High Energy Physics, Chinese Academy of Sciences)				
18:30 - 18:50	CEPC RF Gun Design	Tianmu XIN (Institute of High Energy Physics, Chinese Academy of Sciences)	18:30 - 18:50	CEPC Alignment and Installation	Xiaolong WANG (Institute of High Energy Physics, Chinese Academy of Sciences)				
Evening		Chair: Frank ZIMMERMANN (CERN)			Chair: Makoto TOBIYAMA (High Energy Accelerator Research Organization (KEK))				
		Title	Speaker		Title	Speaker			
	20:00 - 20:20	FCC-ee Design	Jacqueline KEINTZEL (CERN)	20:00 - 20:20	Muon Colliders - Challenges	Daniel SCHULTE (CERN)			
	20:20 - 20:40	SuperKEKB Collimator System	Takuya ISHIBASHI (High Energy Accelerator Research Organization (KEK))	20:20 - 20:40	SppC Study Status	Jingyu TANG (Institute of High Energy Physics, Chinese Academy of Sciences)			
	20:40 - 21:00	IR Modelling for FCC-ee	Leon VAN RIESEN-HAUPT (CERN)	20:40 - 21:00	CEPC Cryogenic System R&D	Rui GE (Institute of High Energy Physics, Chinese Academy of Sciences)			
	21:00 - 21:20	CEPC MDI issues	Sha BAI (Institute of High Energy Physics, Chinese Academy of Sciences)	21:00 - 21:20	CEPC Instrumentation R&D	Yanfeng SUI (Institute of High Energy Physics, Chinese Academy of Sciences)			
	21:20 - 21:40	CEPC SC Quadrupole Magnet R&D	Yingshun ZHU (Institute of High Energy Physics, Chinese Academy of Sciences)	21:20 - 21:40	CEPC Plasma Injector Studies	Dazhang LI (Institute of High Energy Physics, Chinese Academy of Sciences)			
	21:40 - 21:50	Break			21:40 - 21:50	Break			
		Chair: Jie GAO (Institute of High Energy Physics, Chinese Academy of Sciences)				Chair: Vladimir SHILTSEV (Fermi National Accelerator Laboratory)			
		Title	Speaker		Title	Speaker			
	21:50 - 22:10	CEPC RF System and R&D	Jiyuan ZHAI (Institute of High Energy Physics, Chinese Academy of Sciences)	21:50 - 22:10	SppC High Field SC Magnet R&D	Qingjin XU (Institute of High Energy Physics, Chinese Academy of Sciences)			
	22:10 - 22:30	650MHz High Power High Efficiency Klystron	Zusheng ZHOU (Institute of High Energy Physics, Chinese Academy of Sciences)	22:10 - 22:30	Superconducting Magnet Technology Development	Stephen GOURLAY (PNTZ Consulting Group, LLC)			
22:30 - 22:50	Global Planning for Colliders - EPPS, Snowmass, China, Russia	Vladimir SHILTSEV (Fermi National Accelerator Laboratory)	22:30 - 22:50	Coherent Electron Cooling - Promise and Challenges	Gennady STUPAKOV (SLAC National Accelerator Laboratory)				
22:50 - 23:10	C^3 Linear Colliders - A New Approach	Emilio A. NANNI (SLAC National Accelerator Laboratory, Stanford University)	22:50 - 23:10	Plasma Colliders	Carl SCHROEDER (Lawrence Berkeley National Laboratory)				