IAS Program on High Energy Physics 2022

Mini-workshop on Experiment/ Detector: Innovation in HEP Detectors and Computing
(HKT | GMT +8) January 13-14, 2022 at 15:00 - 18:10/ 18:05 & 20:00/ 19:55 - 24:00/ 23:10

Format of Talk: 30-minute presentation + 15-minute Q&A session (**The length of each talk is different. Please kindly note.**)

		January 13, 2022 (Thursday)			January 14, 2022 (Friday)	
		Theme: Innovative Ideas in HEP Detectors			Theme: Innovative Ideas in HEP Computing	
		Chairs: Franco BEDESCHI (The Italian National Institute of Nuclear Physics (INFN) - Pisa) Joao GUIMARAES DA COSTA (Institute of High Energy Physics, Chinese Academy of Sciences)			Chairs: Paolo GIACOMELLI (The Italian National Institute of Nuclear Physics (INFN) - Bologna) Weidong LI (Institute of High Energy Physics, Chinese Academy of Sciences)	
		Title	Speaker		Title	Speaker
After-noon	15:00 - 15:05	Opening Remarks	Joao GUIMARAES DA COSTA (Institute of High Energy Physics, Chinese Academy of Sciences)	15:00 - 15:45	Opticks : Innovation in Optical Photon Simulation via State-of-the-art GPU Ray Tracing from NVIDIA® OptiX™	Simon BLYTH (Institute of High Energy Physics, Chinese Academy of Sciences)
	15:05 - 15:50	Blue Sky Research	Peter KRIZAN (The Jožef Stefan Institute)	15:45 - 16:30	Key4HEP: Common Software for Future Experiments	Benedikt HEGNER (CERN)
	15:50 - 16:30	Highlights on Silicon Sensor Developments	Phil ALLPORT (University of Birmingham)	16:30 - 16:40	Break	
	16:30 - 16:40	Break				
		Title	Speaker		Title	Speaker
	16:40 - 17:20	Next Generation Vertex Detectors Based on Bent CMOS Sensors Wafers	Magnus MAGER (CERN)	16:40 - 17:25	Tracking with A Common Tracking Software (ACTS)	Xiaocong AI (Deutsches Elektronen-Synchrotron (DESY))
	17:20 - 18:00	Semiconductor Detectors for 4D Tracking	Gregor KRAMBERGER (University of Ljubljana)	17:25 - 18:05	The CERN Quantum Technology Initiative	Sofia VALLECORSA (CERN)
		Title	Speaker		Title	Speaker
	19:50 - 20:30	Pixelated Time Projection Chamber Tracker Detector Technology	Peter KLUIT (National Institute for Subatomic Physics (NIKHEF))	19:55 - 20:25	Application of Quantum Machine Learning to High Energy Physics Data Analysis	Chen ZHOU (Peking University)
	20:30 - 21:10	Precision Timing in Calorimetry	Imad LAKTINEH (Centre National de la Recherche Scientifique)	20:25 - 20:55	Application of Quantum Machine Learning on PID at BESIII	Teng LI (Shandong University)
Evening	21:10 - 21:50	Digital SiPM and DR Calorimetry	Romualdo SANTORO (Insubria University and The Italian National Institute of Nuclear Physics (INFN) - Milano)	20:55 - 21:40	Cluster Counting	Francesco GRANCAGNOLO (The Italian National Institute of Nuclear Physics (INFN) - Lecce)
	21:50 - 22:00	Break		21:40 - 21:50	Break	
		Title	Speaker		Title	Speaker
	22:00 - 22:40	Scintillating Glass Hadronic Calorimeter	Yong LIU (Institute of High Energy Physics, Chinese Academy of Sciences)	21:50 - 22:30	Application of AI Techniques to Data Analysis and Physical Interpretation of the Data	Tilman PLEHN (Heidelberg University)
	22:40 - 23:20	Fast Readout Electronics	Angelo RIVETTI (The Italian National Institute of Nuclear Physics (INFN) - Torino)	22:30 - 23:10	Application of Machine Learning to Event Reconstruction and Analysis	Benjamin NACHMAN (Lawrence Berkeley National Laboratory)

Version as of Jan 11, 2022 at 11:09