

IAS Program on High Energy Physics (HEP 2021)

Thursday, 14 January 2021

Mini-workshop: Theory: Day 1 - Session 1: Machine Learning and Open Data (MW-TH-D1-S1) (12:58 - 14:30)

-Conveners: Tao LIU

time	[id] title	presenter
12:58	[209] Opening Remarks	LIU, Tao
13:00	[26] #1: Learning the Geometry of Collider Events	COLLINS, Jack
13:30	[27] #2: Morphology for Jet Classification	NOJIRI, Mihoko
14:00	[28] #3: Searching for Top Super Partner in the CMS Open Data	AN, Haipeng

Mini-workshop: Theory: Day 1 - Session 2: Physics at Future Colliders (MW-TH-D1-S2) (14:40 - 16:10)

-Conveners: Jiayin GU

time	[id] title	presenter
14:40	[29] #1: Higgs and Top Precision with EFT	JUNG, Sunghoon
15:10	[30] #2: Testing Electroweak Phase Transition at Muon Colliders	XIE, Ke-Pan
15:40	[31] #3: Two Paths Towards Precision at a Very High Energy Lepton Collider	FRANCESCHINI, Roberto

Mini-workshop: Theory: Day 1 - Session 3: Quantum Sensing for New Physics (MW-TH-D1-S3) (21:00 - 22:30)

-Conveners: Zhen LIU

time	[id] title	presenter
21:00	[32] #1: Direct Deflection of Dark Matter	BERLIN, Asher
21:30	[33] #2: Probing New Physics at the Precision Frontier	SOREQ, Yotam
22:00	[34] #3: Searching for Dark Particles with Nonlinear Optics	HARNIK, Roni

Mini-workshop: Theory: Day 1 - Session 4: EFT and Amplitudes (MW-TH-D1-S4) (22:40 - 00:40)

-Conveners: Zhen LIU

time	[id] title	presenter
22:40	[35] #1: On-shell Formulation of Chiral Perturbation Theory	LOW, Ian
23:10	[36] #2: Microscopic Bounds on Macroscopic Theories	RIVA, Francesco
23:40	[37] #3: The Geometric SMEFT	MARTIN, Adam

Friday, 15 January 2021

Mini-workshop: Theory: Day 1 - Session 4: EFT and Amplitudes (MW-TH-D1-S4) (00:10 - 00:40)

-Conveners: Zhen LIU

time	[id] title	presenter
00:10	[201] #4: Partial Wave Amplitude Basis and Selection Rules in Effective Field Theories	SHU, Jing

Mini-workshop: Theory: Day 2 - Session 1: Quantum Sensing for New Physics (MW-TH-D2-S1) (13:00 - 14:30)

-Conveners: Jia LIU

time	[id] title	presenter
13:00	[38] #1: Detecting Light Dark Matter with Phonons and Magnons	ZHANG, Zheng kang
13:30	[39] #2: Mechanical Quantum Sensors in the Search for Dark Matter	CARNEY, Daniel
14:00	[40] #3: Resonant and Broadband Detection of Ultralight Axion Dark Matter	D'AGNOLO, Raffaele Tito

Mini-workshop: Theory: Day 2 - Session 2: EFT and Amplitudes (MW-TH-D2-S2) (14:40 - 16:10)

-Conveners: Hao ZHANG

time	[id] title	presenter
14:40	[41] #1: Positivity in Multi-field EFTs	ZHANG, Cen
15:10	[42] #2: An Unambiguous Test of Positivity at Lepton Colliders	GU, Jiayin
15:40	[43] #3: On-shell Massive Effective Field Theory	MA, Teng

Mini-workshop: Theory: Day 2 - Session 3: Machine Learning and Open Data (MW-TH-D2-S3) (21:00 - 22:30)

-Conveners: Zhen LIU

time	[id] title	presenter
21:00	[44] #1: Jet Topology	LI, Lingfeng
21:30	[45] #2: New Paradigms for New Physics Searches with Machine Learning	SHIH, David
22:00	[46] #3: Discovering Unanticipated New Physics with Machine Learning	NACHMAN, Benjamin Philip

Mini-workshop: Theory: Day 2 - Session 4: Physics at Future Colliders (MW-TH-D2-S4) (22:40 - 00:10)

-Conveners: Zhen LIU

time	[id] title	presenter
22:40	[47] #1: The Muon-Smasher's Guide	CRAIG, Nathaniel
23:10	[48] #2: Search for WIMP Dark Matter at High Energy Muon Colliders	WANG, Liantao
23:40	[49] #3: Composite Higgs Models at the High-Energy Muon Collider	LIU, Da