

Quantum Computing and Machine Learning Workshop 2023

Saturday, 12 August 2023

Plenary (08:30 - 10:10)

-Conveners: Xingtao Huang

time	[id] title	presenter
08:30	[47] 校长欢迎辞	Prof. 韩, 圣浩
08:40	[11] 高质量发展量子计算 赋能第四次工业革命	Prof. 俞, 大鹏
09:40	[55] HEP in the era of AI	SALZBURGER, Andreas

Plenary (10:45 - 12:00)

-Conveners: Weidong Li; 祖豪 李

time	[id] title	presenter
10:45	[22] Quantum machine learning algorithms in HEP	MOHAMMED, Abdualazem
11:10	[23] Quantum Tracking for Future Colliders	OKAWA, Hideki
11:35	[18] 国内高性能量子计算机的使用及需求探索	梁, 福田

Plenary (14:00 - 15:10)

-Conveners: Shenjian Chen; Ye YUAN

time	[id] title	presenter
14:00	[19] 量子软件工程与量子程序测试简介	Dr 龙, 沛洵
14:25	[17] 量子云服务及进展	Dr 王, 正安
14:50	[20] 基于国产异构计算平台的 Qiskit 移植与优化	BI, Yujiang

Plenary (15:40 - 17:15)

-Conveners: Ying-Ying Li; 钟治 栾

time	[id] title	presenter
15:40	[21] Quantum machine learning (online)	Prof. SPANNOWSKY, Michael
16:25	[15] 百度量子计算平台 量易伏 3.0 持续演进	Dr 刘, 树森
16:50	[16] 百度量子硬件平台 (online)	Dr 王, 宇轩

Sunday, 13 August 2023

Plenary (09:00 - 10:15)

-Conveners: Manqi Ruan; UNKNOWN 宫明

time	[id] title	presenter
09:00	[25] 量子-经典混合计算概述	Dr 王, 升斌
09:25	[26] 非微扰物理的量子模拟	张, 旦波
09:50	[27] Scattering Amplitude from Quantum Computing with Reduction Formula	LAI, Wai Kin

Plenary (10:45 - 12:00)

-Conveners: LI Gang (EPD.IHEP); Lei Zhang

time	[id] title	presenter
10:45	[24] 高能物理人工智能平台 (HepAI) 发展和大模型在高能物理中的应用 (online)	ZHANG (张正德), Zheng-De
11:10	[31] 物理模型嵌入的AI for Physics研究	赵丽娜
11:35	[32] 深度学习技术在分波分析中的应用	蔡, 浩

Plenary (14:00 - 15:30)

-Conveners: Sheng-Sen Sun

time	[id] title	presenter
14:00	[33] Boost Physics Analysis at BESIII with Deep Learning	LI, Yangu
14:25	[34] Implement ParticleNet on FPGA	张玉涛
14:50	[29] Quantum GAN for fast shower simulation	HUANG, xiaozhong
15:10	[28] Jet clustering and matching with QAOA	朱, 永峰

Plenary (16:00 - 17:25)

-Conveners: 腾 李

time	[id] title	presenter
16:00	[36] FastCaloGAN: A fast calorimeter simulation tool exploiting Generative Adversarial Networks (online)	张, 瑞
16:25	[49] Constituent-Based W-boson Tagging with the ATLAS Detector	WANG, Shudong
16:45	[48] Pion/Kaon Identification Based on Classical/Quantum CNN	姚, 志鹏
17:05	[54] Status of Total model for Pileup study	王储

Monday, 14 August 2023

Plenary (09:00 - 10:15)

-Conveners: Zhen Hu; Bei Jiang LIU

time	[id] title	presenter
09:00	[37] Symmetry Preserving Attention Networks for resolved top quark reconstruction at the LHC	OKAWA, Hideki
09:25	[35] PandaX-III 实验中基于机器学习的粒子径迹特征分析	王, 少博
09:50	[50] HEP ML Lab — An end-to-end framework for signal vs background analysis in high energy physics	LI, Jing

Plenary (10:45 - 12:30)

-Conveners: Yaquan FANG Yaquan

time	[id] title	presenter
10:45	[38] Progress on the Global analysis on CEPC Higgs using ParticleTransformer	王, 书栋
11:05	[51] BESIII track reconstruction algorithm based on machine learning	贾, 晓倩
11:25	[52] Reconstruction of Atmospheric Neutrino's Directionality and Energy in JUNO	杨, 泽坤
11:45	[53] Identification of Atmospheric Neutrinos in JUNO with Machine Learning	曾, 凡蕊
12:05	[56] Discussion	
12:25	[45] Closing remark	HUANG, Xingtao