

Quantum Computing and Machine Learning Workshop 2024

Tuesday, 6 August 2024

Plenary - 福朋厅 (Fourpoints ballroom) (08:30 - 11:55)

-Conveners: weimin song

time	[id] title	presenter
08:30	[20] 欢迎致辞	
08:40	[22] Overview of ML studies at CMS and ATLAS	张, 瑞
09:20	[42] Jet tagging at CEPC (online)	RUAN, Manqi
09:45	[21] 机器学习驱动的同步辐射实验“智慧终端”应用研究	赵丽娜, UNKNOWN
10:10	Group Photo + Coffee break	
10:40	[70] 人工智能基本原理与研究进展	叶, 育鑫
11:05	[71] Deep learning applications in the generation of attosecond ultrafast magnetic fields in intense laser field	YAN, Shujuan
11:30	[52] Sophon meets LHC: Accelerating resonance discovery via signature-oriented pre-training	LI, Congqiao

Plenary - 福朋厅 (Fourpoints ballroom) (14:00 - 18:05)

-Conveners: Zheng-De Zhang (张正德); Ke LI

time	[id] title	presenter
14:00	[25] AI assistant for ATLAS - chATLAS	RANDAZZO, Cary
14:25	[26] AI agent for BESIII - Dr. Sai	LI, Ke
14:50	[30] LLM model for HEP - Xiwu	CHEN, Siyang
15:15	[27] AI platform and software framework at IHEP	ZHANG, Yiyu
15:40	Coffee break	
16:00	[28] Multi-agents system for BESIII analysis	ZHANG, bolun
16:25	[29] Data cleaning for LLM	JIAO, Junkun
16:50	[73] 多模态大模型的实践与思考	朱, 优松
17:15	[74] 基于国产加速卡的科学大模型研究与实践	杨, 超

Wednesday, 7 August 2024

Plenary - 福朋厅 (Fourpoints ballroom) (09:00 - 12:00)

-Conveners: UNKNOWN 宫明; Ying-Ying Li

time	[id] title	presenter
09:00	[33] Scattering amplitude from quantum computing with reduction formula	GUO, Xingyu
09:25	[36] Quantum simulations of non-perturbative effects in strong field QED	XU, Bin
09:50	[34] 量子计算在核物理的应用研究 (online)	WEI, Shijie
10:15	Coffee break	
10:45	[37] Variational ansatz inspired by quantum imaginary time evolution	WANG, Xiaoyang
11:10	[38] 数字化反向透热补偿算法对于优化问题的求解	关, 卉杰

Plenary - 福朋厅 (Fourpoints ballroom) (14:00 - 18:00)

-Conveners: Gang LI

time	[id] title	presenter
14:00	[40] AI for complex physical simulation and inverse design (online)	吴, 泰霖
14:40	[39] Machine Learning Accelerated CALYPSO Structure Prediction Method	高, 朋越
15:05	[54] Cluster counting reconstruction with classical supervised learning and transfer learning	ZHAO, Guang
15:55	Coffee break	
16:20	[24] Overview of ML studies at JUNO (online)	李, 腾
16:45	[55] Learning powerful jet representations via self-supervision	WANG, Shudong
17:10	[75] A Novel Quantum Realization of Jet Clustering in High-Energy Physics Experiments	朱, 永峰
17:35	[50] Deep Learning-Based C14 Pile-Up Identification in the JUNO Experiment	方, 文兴

Thursday, 8 August 2024

Plenary - 福朋厅 (Fourpoints ballroom) (09:00 - 12:00)

-Conveners: Gang LI; Guang ZHAO

time	[id] title	presenter
09:00	[46] Quantum annealing inspired algorithms for reconstruction (online)	OKAWA (大川), Hideki (英希)
09:25	[47] Quantum GAN for fast shower simulation	HUANG, Xiaozhong
09:50	[48] Integration of quantum computing into transformer architectures for High Energy Physics	MOHAMMED, Abdualazem
10:15	Coffee break	
10:45	[57] MVAs in Belle II experiment	LIU, Meihong
11:10	[49] Particle Identification based on CNN/QCNN	姚, 志鹏
11:35	[53] Hadron Identification based on DNN at BESIII	袁, 昊

Plenary - 福朋厅 (Fourpoints ballroom) (14:00 - 17:05)

-Conveners: Yaquan FANG Yaquan; Ye YUAN

time	[id] title	presenter
14:00	[43] GNN for tracking at BESIII and STCF (online)	QIN, Xiaoshuai
14:25	[45] GNN Track Reconstruction of Non-helical BSM Signatures	SHA, Qiyu
14:50	[51] Enhancing GRB Detection: Machine Learning Optimization of Triggerless Data Analysis Algorithms for LHAASO-WCDA	MUSTOFA, ABDULHAFIZ AHMED
15:15	Coffee break	
15:35	[56] Simulation Based Inference for Future Collider	LI, Lingfeng
16:00	[44] Pipeline for Installing ML Algorithms in Athena' s Offline Data Quality Monitoring via Onnx	RANDAZZO, Cary
16:25	[58] Discussion and Remark	