IEEE Quantum Week 2021 Workshop: Quantum Computing for High-Energy Physics

Thursday, 21 October 2021

Workshop sessions: Session 1 **(10:45 - 12:20)**

   -Conveners: Sofia Vallecorsa

time	[id] title	presenter
10:45	[16] Introduction	DELGADO, Andrea
10:50	[1] Keynote: Scalable Quantum Simulations of the Schwinger Model	WIEBE, Nathan
11:35	[2] Keynote: Quantum Computing Applications for HEP	PERDUE, Gabriel PERDUE, Gabriel

Workshop sessions: Session 2 **(12:45 - 14:25)**

   -Conveners: Jean-Roch Vlimant

time	[id] title	presenter
12:45	[12] Trends in quantum machine learning based on parametrized quantum circuits	DUNJKO, Vedran
13:15	[3] Dimensional Expressivity Analysis of Parametric Quantum Circuits	FUNCKE, Lena
13:35	[13] Quantum speedup for track reconstruction in particle accelerators	OMAR, Yasser
14:05	[4] First implementation of Quantum Machine Learning algorithms for b-jet tagging at LHCb	ZULIANI, Davide

Workshop sessions: Session 3 **(14:45 - 16:25)**

   -Conveners: Andrea Delgado

time	[id] title	presenter
14:45	[5] Modified Layerwise Learning for Data Re-Uploading Classifier in High-Energy Physics Event Classification	MUTEN, Eraraya Ricardo
15:05	[7] Quantum Imaginary Time Evolution for Quantum Field Theories with Continuous Variables	KUBRA, Yeter-Aydeniz
15:25	[8] Towards Quantum Compression in High-Energy Physics Data	ARGÜELLES-DELGADO, Carlos A. LAZAR, Jeffrey
15:45	[9] Quantum Computing for Color Reconnection	SHYAMSUNDAR, Prasanth
16:05	[10] Digital quantum simulation for screening and confinement in gauge theory with a topological term	NAGANO, Lento