Second MODE Workshop on Differentiable Programming for Experiment Design

Thursday, 15 September 2022

Applications in Particle Physics (09:00 - 10:40)

-Conveners: Pietro Vischia

time	[id] title	presenter
09:00	[46] Machine learning and optimisation in particle accelerator operation for CERN	SCHENK, Michael
09:20	Discussion	
09:25	[58] Phase Space Reconstruction of Beams Using Machine Learning Based Representations	ROUSSEL, Ryan
09:45	Discussion	
09:50	[85] Surrogate Regressors for a Surrogate generators	Dr RATNIKOV, Fedor
10:10	Discussion	
10:15	[48] LHCb ECAL optimization	BOLDYREV, Alexey
10:35	Discussion	

Applications in Particle Physics (16:00 - 17:15)

-Conveners: Pietro Vischia

time	[id] title	presenter
16:00	[81] Score-function Optimization for Branching Processes	HEINRICH, Lukas Alexander
16:20	Discussion	
16:25	[64] Optimization of small scale experiments, MILLIQAN and SUBMET as examples	ZARAKET, Haitham
16:45	Discussion	
16:50	[45] Automatic differentiation for Monte Carlo processes	RAMOS MARTINEZ, Alberto
17:10	Discussion	

Applications in Particle Physics (17:35 - 18:35)

-Conveners: Alexey Boldyrev

time	[id] title	presenter
17:35	[47] Challenges in the optimization of the HGCAL Optical Fibre Plant	FORTHOMME, Laurent VIEIRA DE CASTRO FERREIRA DA SILVA, Pedro
17:55	Discussion	
18:00	[59] Towards a differentiable sampling ECAL model with optimal absorber material distribution	Mr VADHERA, Shivay
18:20	Discussion	