

LECTURE PLAN

Date	Lec 1	Lec 2	Hands-on
22 Aug	Nishita Basics of Monte-Carlo 10:00-11:30	Nishita Writing a toy MC generator LHE format 12:00-13:30	14:30-16:00 16:30-18:00 MC basics and Event generators with python notebooks
23 Aug	Nishita Showering and Hadronization basics 09:30-11:00	Nishita Introduction to Pythia8 11:30-13:00	14:30-16:00 16:30-18:00 Pythia8+Root basics
24 Aug	Nishita Analysis with Delphes+ Pythia8 + root 09:30-11:00	Nishita Analysis with Delphes+ Pythia8 + root 11:30-13:00	14:30-16:00 16:30-18:00 Pythia+delphes
25 Aug	Satyaki/Arun Introduction to machine learning 09:30-11:00	Satyaki/Arun Basics of Artificial Neural Network 11:30-13:00	City Lunch
26 Aug	Satyaki/Arun Back propagation algorithm, gradient descent, stochastic gradient descent etc.. 09:30-11:00	Satyaki/Arun Overtraining issues and possible mitigations. 11:30-13:00	14:30-16:00 16:30-18:00
27 Aug	Arun Boosted Decision Trees 09:30-11:00	Arun Boosted Decision Trees 11:30-13:00	14:30-16:00 16:30-18:00
28 Aug	Satyaki Convolutional Neural Networks 09:30-11:00	Satyaki Recursive networks / Autoencoders 11:30-13:00	14:30-16:00 16:30-18:00