

**Tecniche Di Machine Learning
Con Dispositivi FPGA per Gli
Esperimenti Di Fisica Delle
Particelle**

Report of Contributions

Contribution ID: 1

Type: **not specified**

Efficient Machine Learning in High-Energy Physics

Wednesday, 2 November 2022 14:15 (45 minutes)

Summary

Presenter: NGADIUBA, Jennifer (CMS)

Contribution ID: 2

Type: **not specified**

Introduction to FPGA

Wednesday, 2 November 2022 15:00 (35 minutes)

Presenter: TRAVAGLINI, Riccardo (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 3

Type: **not specified**

Deep Learning inference with FPGA

Wednesday, 2 November 2022 15:35 (25 minutes)

Presenter: TRAVAGLINI, Riccardo (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 4

Type: **not specified**

Fast inference with HLS4ML: Machine Learning with FPGA at LHC

Wednesday, 2 November 2022 16:30 (35 minutes)

Presenter: AARRESTAD, Thea (ETH Zurich)

Contribution ID: 5

Type: **not specified**

Xilinx ML/AI: technologies (edge, on-premise, on cloud) and solutions (VitisAI, Pynq, ...)

Wednesday, 2 November 2022 17:05 (50 minutes)

Presenter: RUIZ-NOGUERA, Mario (AMD)

Contribution ID: 6

Type: **not specified**

HLS4ML tutorial part 1

Thursday, 3 November 2022 09:30 (3h 30m)

Functionalities, quantization and compression

Presenters: SUMMERS, Sioni; AARRESTAD, Thea (ETH Zurich)

Contribution ID: 7

Type: **not specified**

HLS4ML tutorial part 2

Thursday, 3 November 2022 14:30 (3 hours)

Demo on real HW or deploying on AWS F1

Presenters: LORUSSO, Marco (Istituto Nazionale di Fisica Nucleare); SUMMERS, Sioni; AAR-RESTAD, Thea (ETH Zurich)

Contribution ID: 8

Type: **not specified**

Deep Learning inference with the Bond Machine project: introduction and demo

Friday, 4 November 2022 09:00 (1 hour)

Presenter: MARIOTTI, Mirko (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 9

Type: **not specified**

Open discussion and demo

Friday, 4 November 2022 10:00 (1 hour)

Summary

Presenter: TRAVAGLINI, Riccardo (Istituto Nazionale di Fisica Nucleare)

Contribution ID: **10**

Type: **not specified**

ML/AI with Intel FPGA

Friday, 4 November 2022 11:30 (1 hour)

Presenter: LONCAR, Vladimir

Contribution ID: 11

Type: **not specified**

Alternative solutions at the Edge: Lattice, Microchip

Friday, 4 November 2022 12:30 (30 minutes)

Summary

Presenter: TRAVAGLINI, Riccardo (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 12

Type: **not specified**

Introduction to Vitis AI

Friday, 4 November 2022 14:00 (20 minutes)

Presenter: TRAVAGLINI, Riccardo (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 13

Type: **not specified**

Vitis AI tutorial/hands-on

Friday, 4 November 2022 14:20 (2h 10m)

Presenter: LORUSSO, Marco (Istituto Nazionale di Fisica Nucleare)