

US ATLAS Machine Learning Training 2023



Lawrence Berkeley National Lab
July 25-28, 2023



Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome Presentation

Tuesday 25 July 2023 08:30 (30 minutes)

Presenters: GHOSH, Aishik (University of California Irvine (US)); NACHMAN, Ben (Lawrence Berkeley National Lab. (US)); KHODA, Elham E (University of Washington (US))

Contribution ID: 2

Type: **not specified**

Introduction to Machine Learning: Part I

Tuesday 25 July 2023 09:00 (1h 30m)

Presenter: DUARTE, Javier Mauricio (Univ. of California San Diego (US))

Contribution ID: 3

Type: **not specified**

Tutorial: ML Tools and Techniques

Tuesday 25 July 2023 11:00 (1h 30m)

Presenters: CHAN, Jay (University of Wisconsin Madison (US)); BAI, Kehang (University of Oregon (US))

Contribution ID: 4

Type: **not specified**

Introduction to Machine Learning: Part II

Tuesday 25 July 2023 14:00 (1h 30m)

Presenter: KHODA, Elham E (University of Washington (US))

Contribution ID: 5

Type: **not specified**

Tutorial: Neural Networks

Tuesday 25 July 2023 15:45 (1h 45m)

Presenters: CHAN, Jay (University of Wisconsin Madison (US)); BAI, Kehang (University of Oregon (US))

Contribution ID: 6

Type: **not specified**

Overview of ML in particle physics

Wednesday 26 July 2023 09:00 (1h 30m)

Presenter: NACHMAN, Ben (Lawrence Berkeley National Lab. (US))

Contribution ID: 7

Type: **not specified**

Graph NN: part I

Wednesday 26 July 2023 11:00 (1h 30m)

Presenter: DUARTE, Javier Mauricio (Univ. of California San Diego (US))

Contribution ID: **8**

Type: **not specified**

Graph NN: Part II

Wednesday 26 July 2023 14:00 (1 hour)

Presenter: DUARTE, Javier Mauricio (Univ. of California San Diego (US))

Contribution ID: 9

Type: **not specified**

Generative Models: Part I

Wednesday 26 July 2023 15:00 (45 minutes)

Presenters: DIEFENBACHER, Sascha (Lawrence Berkeley National Lab. (US)); MIKUNI, Vinicius Massami (Lawrence Berkeley National Lab. (US))

Contribution ID: **10**

Type: **not specified**

Generative Models: Part II

Wednesday 26 July 2023 16:15 (1h 45m)

Presenters: DIEFENBACHER, Sascha (Lawrence Berkeley National Lab. (US)); MIKUNI, Vinicius Massami (Lawrence Berkeley National Lab. (US))

Contribution ID: **11**

Type: **not specified**

Unfolding

Thursday 27 July 2023 10:30 (1h 30m)

Presenter: MIKUNI, Vinicius Massami (Lawrence Berkeley National Lab. (US))

Contribution ID: 12

Type: **not specified**

Uncertainties

Thursday 27 July 2023 09:00 (1 hour)

Presenter: GHOSH, Aishik (University of California Irvine (US))

Contribution ID: 13

Type: **not specified**

Differentiable Programming with JAX

Thursday 27 July 2023 13:30 (2 hours)

Presenters: NIGMETOV, Arnur (LBNL); CHALAPATHI, Nithin (University of California, Berkeley)

Contribution ID: 14

Type: **not specified**

Industry Talk

Thursday 27 July 2023 16:00 (1 hour)

Presenter: Dr LUO, Chen (Amazon.com)

Contribution ID: **15**

Type: **not specified**

Networking

Thursday 27 July 2023 17:00 (1 hour)

Contribution ID: 16

Type: **not specified**

Software deployment with ONNXRuntime

Friday 28 July 2023 10:30 (1h 30m)

Presenter: HANGAL, Dhanush Anil (Lawrence Livermore Nat. Laboratory (US))

Contribution ID: 17

Type: **not specified**

Hardware deployment with hls4ml

Friday 28 July 2023 13:30 (1h 30m)

Step 1:

Accept the github invitation (sent earlier today)

Step 2:

Start the jupyterhub: <https://jhub.35.192.180.88.nip.io>

Presenter: KHODA, Elham E (University of Washington (US))

Contribution ID: **18**

Type: **not specified**

Transformers

Friday 28 July 2023 09:00 (1 hour)

Presenter: SHAMAKOV, Alexander (UC Irvine)

Contribution ID: **19**

Type: **not specified**

Closing Remarks

Friday 28 July 2023 16:30 (20 minutes)

Presenters: GHOSH, Aishik (University of California Irvine (US)); NACHMAN, Ben (Lawrence Berkeley National Lab. (US)); KHODA, Elham E (University of Washington (US))

Contribution ID: 20

Type: **not specified**

Large Language Models

Friday 28 July 2023 15:30 (1 hour)

Presenter: JU, Xiangyang (Lawrence Berkeley National Lab. (US))

Contribution ID: **21**

Type: **not specified**

Dinner