

Machine Learning approaches in Lattice QCD - An interdisciplinary exchange

Wednesday, March 1, 2023

EFT, Lattice and ML (9:00 AM - 10:40 AM)

-Conveners: Nora Brambilla

| time | [id] title | presenter |
|----------|---|-----------------------|
| 9:00 AM | [23] Learning Trivializing Gradient Flows | BACCHIO, Simone |
| 9:40 AM | [40] An analysis of Bayesian estimates for missing higher orders in perturbative calculations | MAZELIAUSKAS, Aleksas |
| 10:10 AM | [39] Generative models and EFTs | MARINKOVIC, Marina |

EFT, Lattice and ML (11:10 AM - 1:00 PM)

-Conveners: Nora Brambilla

| time | [id] title | presenter |
|----------|--|--|
| 11:10 AM | [31] Finite-volume pionless EFT for multi-nucleon systems with differential programming | ROMERO-LOPEZ, Fernando |
| 11:40 AM | [42] Panel discussion: 1. What can EFTs do for ML4LATTICE? 2. What ML4LATTICE could do for EFTs? | CHAIR: NORA BRAMBILLA MEMBERS: MARINA MARINKOVIC SHANAHAN, Phiala WILLIAM DETMOLD ALEKSAS MAZELIAUSKAS |

Friday, March 3, 2023

EFT, Lattice and ML (2:00 PM - 3:15 PM)

| time | [id] title | presenter |
|--------|---|-------------------------|
| 2:00 P | [M03] Machine learning for symbolic computation in high energy physics | ALNUQAYQDAN, Abdulhakim |
| 2:25 P | [M05] Alleviating the Sign Problem via Contour Deformation and Machine Learning | LUU, Thomas |
| 2:50 P | [M06] Gauge-equivariant neural networks as preconditioners in lattice QCD | LEHNER, Christoph |

EFT, Lattice and ML (3:40 PM - 5:00 PM)

| time | [id] title | presenter |
|--------|---|----------------------|
| 3:40 P | [M06] Deep Learning and the Standard Model: a philosophy of science perspective | SCORZATO, Luigi |
| 4:10 P | [M08] The route towards phase transition recognition in Lattice Gauge Theories | ATHENODOROU, Andreas |
| 4:40 P | [M12] Search for Exotic Higgs Bosons using Quantum Machine Learning | AGGARWAL, Nakul |