2nd International Workshop on Machine Learning and Quantum Computing Applications in Medicine and Physics

Monday 03 June 2024 - Friday 07 June 2024

Scientific Programme

The conference will cover the following topics:
• machine-learning methods in medical applications
• machine-learning methods in high energy physics and astrophysics
• application for generative models for fast simulations both in medicine and particle physics.
• simulations and quantum algorithms
• Quantum computing algorithms and quantum-inspired computing algorithms
• novel methods in medical imaging
• big data processing techniques in physics and medicine with the High-Performance Computing platforms as well as heterogeneous ones such as FPGA and GPU

Quantum algorithms and methods

The scope of the track covers among others quantum simulations, quantum algorithms, and quantum machine learning algorithms with a focus on application in Physics and Medicine.

List of topics:

- quantum machine learning,
- quantum simulations,
- quantum and quantum-inspired computing algorithms

Machine Learning in Physics

The scope of the track covers among others machine learning algorithms with a focus on application in Physics.

List of topics:

- machine learning methods in high-energy physics and astrophysics,
- generative models for fast simulations both in particle physics

Machine Learning in Medicine

The scope of the track covers among others machine learning algorithms with a focus on application in Medicine.

List of topics:

- machine learning methods in medical applications,
- generative models for fast simulations both in medicine,
- novel methods in medical imaging

High Performance Computing

The scope of the workshop covers among others High-Performance Computing (HPC) in physics and medicine, in particular on heterogeneous platforms such as FPGA and GPU.

Medical imaging