Fourth MODE Workshop on Differentiable Programming for Experiment Design

Monday 23 September 2024 - Wednesday 25 September 2024

Valencia (Spain)

Scientific Programme

Muography

Applications of differentiable programming and/or deep learning to muography, or interesting use cases in muography that may profit from a differentiable optimization pipeline.

We will reserve the right of migrating these contributions to a more suitable track.

Particle Physics

Applications of differentiable programming and/or deep learning to particle physics, or interesting use cases in particle physics that may profit from a differentiable optimization pipeline.

This includes both detector and accelerator optimization.

We will reserve the right of migrating these contributions to a more suitable track.

Nuclear Physics

Applications of differentiable programming and/or deep learning to nuclear physics, or interesting use cases in nuclear physics that may profit from a differentiable optimization pipeline.

This includes applications of nuclear physics to medical physics.

We will reserve the right of migrating these contributions to a more suitable track.

Astrophysics and Cosmology

Applications of differentiable programming and/or deep learning to astrophysics and cosmology, or interesting use cases in astrophysics and cosmology that may profit from a differentiable optimization pipeline.

We will reserve the right of migrating these contributions to a more suitable track.

Neutrino Detection

Applications of differentiable programming and/or deep learning to neutrino detection experiments, or interesting use cases in neutrino detection experiments that may profit from a differentiable optimization pipeline.

Medical Physics

Applications of differentiable programming and/or deep learning to medical physics settings, or interesting use cases in medical physics applications that may profit from a differentiable optimization pipeline.

We will reserve the right of migrating these contributions to a more suitable track.

Computer Science

Methods and/or software for differentiable programming and/or deep learning, with a particular focus on fully differentiable optimization pipelines.

We will reserve the right of migrating these contributions to a more suitable track.
Not sure
Abstracts that are related to the concept of differentiable pipelines for optimization, but that may not fall clearly in any of the other tracks.
We will reserve the right of migrating these contributions to a more suitable track.

Astroparticle Physics

Particle Physics

Muography

Medical Physics

Nuclear Applications

Computer Science

Poster session