

Second MODE Workshop on Differentiable Programming for Experiment Design



Contribution ID: 68

Type: Talk

Deep neural networks applied to muon tomography scattering angular distributions

Wednesday, 14 September 2022 15:50 (20 minutes)

Several applications of scattering muon tomography require the estimation of a limited number of key parameters associated to a given sample. In this presentation we explore the use of the quantiles of the angular and spatial deviation distributions as the input to Deep Neural Networks regressing on the parameters of interest. We provide examples related to the measurement of the position of the electrodes in an electric furnace and also on the estimation of the snow water equivalent (SWE) in snowpacks.

Primary author: DIEZ, Carlos (Muon Tomography Systems S.L.)

Presenter: DIEZ, Carlos (Muon Tomography Systems S.L.)

Session Classification: Applications in Muon Tomography

Track Classification: Muography