Contribution ID: 8 Type: not specified

Production and Applications of Muons from Backscattered Photons at the EIC

Wednesday, 5 April 2023 10:10 (30 minutes)

Most muon production mechanisms at nuclear particle facilities use protons on targets. At the EIC, there is an alternative, namely the possibility to use the high energy electron beam to backscatter laser photons onto targets to produce the muons. We describe this mechanism for the EIC electron kinematic regime and possible applications of the muons produced. In addition, we provide an overview of the Workshop, the relationship among the various ideas to be discussed, and comment on a path forward.

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Session Classification: Morning Session