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FASER (the ForwArd Search ExpeRiment)

The design, expected sensitivity, and current status of the FASER detector are presented. The FASER detector construction was recently completed and it is now undergoing commissioning and preparation for taking data starting in 2022 during Run 3 of the LHC. FASER is dedicated to searching for long-lived particles beyond the standard model. Though extremely rare, such particles may be produced in the high intensity far-forward region of the LHC's proton-proton collisions. These particles may then decay to visible standard model particles within FASER, which is located 480 m downstream of the ATLAS interaction point. This poster depicts a possible mechanism for the production and detection of a Dark Photon with the FASER detector. The motivation for the design of the FASER detector is also presented.

Collaboration / Activity

FASER

First author

Email

Primary author: FELLERS, Deion (University of Oregon)

Presenter: FELLERS, Deion (University of Oregon)

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