

# Searching for weakly interacting particles with the FASER Experiment

*Wednesday 5 June 2019 11:45 (20 minutes)*

FASER, the ForwArd Search ExpeRiment, is a newly approved experiment at the LHC, dedicated to searching for light, extremely weakly-interacting particles during the LHC Run 3. Such particles may be produced in the LHC's high-energy collisions in large numbers in the far-forward region and then travel long distances through concrete and rock without interacting. They may then decay to visible particles in FASER, which is placed 480 m downstream of the ATLAS interaction point. In this talk, we present the basic concept, the status and the physics reach of FASER. In particular, we discuss the discovery prospects for axion-like particles (ALPs) that couple to the standard model through the axion-photon-photon interaction.

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**Session Classification:** Morning 32