

PHOTON 2019 - International Conference on the Structure and the Interactions of the Photon. Satellite Workshop: Photon Physics and Simulation at Hadron Colliders.



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Type: **Talk**

Prospects for photon-photon measurements with tagged protons in ATLAS

Wednesday, 5 June 2019 14:45 (30 minutes)

In 2017, ATLAS has been equipped with a new, dedicated detector system allowing measurements of forward protons scattered at small angles in diffractive and electromagnetic processes. These ATLAS Forward Proton detectors (AFP) can operate during standard high-luminosity LHC runs and collect large amounts of integrated luminosity. This gives a possibility to study rare interactions, in particular, the two-photon processes. The physics programme includes measurements of photon-photon interactions present in the Standard Model, as well as using searches for new physics. During the talk, the AFP detectors and their performance during 2017 and 2018 operations will be presented. Physics goals and first results will be discussed.

Summary

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Session Classification: Future Perspectives

Track Classification: Gamma-Gamma Collisions