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Evidence for the Higgs Boson Decay to a Z Boson and a Photon at the LHC

G. Aad et al. (ATLAS Collaboration, CMS Collaboration)
Phys. Rev. Lett. 132, 021803 – Published 11 January 2024

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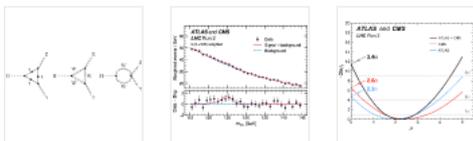
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ABSTRACT

The first evidence for the Higgs boson decay to a Z boson and a photon is presented, with a statistical significance of 3.4 standard deviations. The result is derived from a combined analysis of the searches performed by the ATLAS and CMS Collaborations with proton-proton collision datasets collected at the CERN Large Hadron Collider (LHC) from 2015 to 2018. These correspond to integrated luminosities of around 140 fb^-1 for each experiment, at a center-of-mass energy of 13 TeV. The measured signal yield is 2.2 ± 0.7 times the standard model prediction, and agrees with the theoretical expectation within 1.9 standard deviations.



Received 8 September 2023 Accepted 27 November 2023

DOI: https://doi.org/10.1103/PhysRevLett.132.021803

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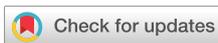
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