

Search for Higgs and Z Boson Decays to ϕ γ with the ATLAS Detector

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Abstract

A search for the decays of the Higgs and Z bosons to a ϕ meson and a photon is performed with a pp collision data sample corresponding to an integrated luminosity of 2.7 fb^{-1} collected at $\sqrt{s}=13 \text{ TeV}$ with the ATLAS detector at the LHC. No significant excess of events is observed above the background, and 95% confidence level upper limits on the branching fractions of the Higgs and Z boson decays to $\phi\gamma$ of 1.4×10^{-3} and 8.3×10^{-6} , respectively, are obtained..