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Measurements of triple-differential cross sections for inclusive isolated-photon+jet events in p p collisions at $\sqrt{s}=8\text{TeV}$ (Article) [\(Open Access\)](#)

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Abstract

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Measurements are presented of the triple-differential cross section for inclusive isolated-photon+jet events in p p collisions at $\sqrt{s}=8\text{TeV}$ as a function of photon transverse momentum (p_T^γ), photon pseudorapidity (η^γ), and jet pseudorapidity (η^{jet}). The data correspond to an integrated luminosity of 19.7fb^{-1} that probe a broad range of the available phase space, for $|\eta^\gamma| < 1.44$ and $1.57 < |\eta^\gamma| < 2.50$, $|\eta^{\text{jet}}| < 2.5$, $40 < p_T^\gamma < 1000\text{GeV}$, and jet transverse momentum, $p_T^{\text{jet}} > 25\text{GeV}$. The measurements are compared to next-to-leading order perturbative quantum chromodynamics calculations, which reproduce the data within uncertainties. © 2019, CERN for the benefit of the CMS collaboration.

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