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Measurements of the CP structure of Higgs-boson couplings with the ATLAS detector

Tuesday 28 October 2025 11:00 (17 minutes)

The Standard Model predicts the Higgs boson to be a CP-even scalar, but CP-odd contributions to its interactions with vector bosons and quarks are not yet strongly constrained. Various Higgs boson production and decay processes provide valuable tools to investigate the CP nature of these interactions. This talk presents the most recent measurements of the CP properties of Higgs boson interactions with vector bosons, performed by the ATLAS experiment using proton-proton collision data collected at $\sqrt{s} = 13$ TeV. These results offer important constraints on possible CP-violating effects, advancing our understanding of Higgs boson dynamics.

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