Deep Inelastic Scattering 2025



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Measurements of Higgs boson properties (mass, width, and Spin/CP) with the ATLAS detector

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This talk presents precise measurement of the properties of the Higgs boson, including its mass, total width, spin, and CP quantum number using the full dataset collected in pp collisions at 13 TeV during Run 2 and at 13.6 TeV during Run 3 of the LHC. The measurements are performed in various Higgs boson production and decay modes, as well as their combinations. Observation of deviations between these measurements and Standard Model (SM) predictions would be a sign of possible new phenomena beyond the SM

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