ID de la contribución : **15** Tipo : **Review talk**

ATLAS Run 2 non resonant HH measurements of Higgs Boson Self-Coupling, combinations and projections for HL-LHC (24+6)

lunes, 2 de diciembre de 2024 15:00 (30)

A combination of searches for non-resonant Higgs boson pair production in the $b\bar{b}b\bar{b}$, $b\bar{b}\gamma\gamma$, $b\bar{b}\tau^+\tau^-$ final states with the ATLAS detector provides constraints on the Standard Model prediction. Current analyses at $\sqrt{s} = 13$ TeV with 126–140 fb^{-1} of data set a 95% CL upper limit of 2.9 times the Standard Model prediction on the Higgs boson pair production rate, with an expected limit of 2.4 under no pair production.

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