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Precision Electroweak Physics at the LHC

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The current status of precision tests of the electroweak Standard Model is summarized, and a short review of the theory input from higher-order loop corrections is given. The most constraining quantities are the masses and couplings of the W and Z bosons, and it is shown how these put strong bounds on various examples of new physics. Furthermore, the impact of current and future LHC data on electroweak precision tests is described in some detail. It is also briefly discussed how measurements of anomalous gauge boson couplings provide complementary information about the electroweak theory.