

Global EFT fits within the ATLAS experiment

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With detailed precision measurements of physics at the scale of electroweak symmetry breaking (EWSB), the experimental study of the Standard Model at the Large Hadron Collider is rapidly shifting towards an effective field theory (EFT) approach. An effective field theory prescription allows to consistently account for all possible deformation to the Standard Model arising from decoupled New Physics scenarios. This calls for a global approach consisting of measurements from different physics sectors and experiments to uncover deviations in data.

In this talk, I will discuss a global EFT fit within ATLAS, which combines kinematic measurements of the Higgs boson and the electroweak sector and includes constraints of electroweak precision observables from LEP and SLD. I will emphasise further how such fits can be allowed to go towards more global fits both within the collaboration and also serves as an input to global fits performed outside the collaboration.

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