(Re)interpreting the results of new physics searches at the LHC

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New Developments in TopFitter

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Effective Field Theory (EFT) is a powerful tool to parametrize high-scale New Physics in a largely model independent way. We employ this method to study the top quark sector of the dimension-six EFT extension of the Standard Model. In particular, we perform a global fit of top-quark related Wilson coefficients using experimental data. While fit results for TEVATRON and LHC Run I data have been previously presented we additionally include Run II data. Introducing an efficient method of sampling the Wilson coefficient parameter space facilitates the extension of the fit to fiducial particle-level measurements which otherwise would be computationally very expensive.

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