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The global electroweak fit and constraints on new physics

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Physics beyond the Standard Model (SM) can modify the relations between electroweak observables and their theoretical predictions. Such effects can be parametrised in terms of effective, so-called oblique parameters. A global fit of the electroweak SM, as performed with the Gfitter package, allows one to determine the oblique parameters and to derive constraints on new physics. In this talk, the Gfitter results for the oblique parameters are presented coherently together with constraints on various new physics models, including Little Higgs models, Extra Dimensions, Supersymmetry, Technicolour and Four Generations.

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