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Status of global SUSY fits

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Supersymmetric models are some of the most popular and well-motivated extensions of the Standard Model, and hence they have been constrained by a vast array of different experimental searches. The diversity of experimental constraints, combined with a large number of parameters, makes the systematic study of SUSY models increasingly complicated and old-school parameter scans are insufficient. Hence, to properly assess the impact of experimental searches on these models, combining their results in a statistically rigorous way and efficiently scanning the multi-dimensional parameter space, one must perform a global fit. In this talk I will discuss the benefits of global fits over traditional parameter scans, and I will give an overview of the status of global fits on several SUSY models, from GUT-inspired models such as the CMSSM or NUHM1, to phenomenological weak-scale MSSM models.

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