DISCRETE 2014: Fourth Symposium on Prospects in the Physics of Discrete Symmetries



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How effective is the Standard Model effective field theory?

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The discovery of the Higgs boson closes the last remaining degree of freedom in the space of Standard Model physics, thus allowing unprecedented model-independent sensitivity to BSM physics. We may use this sensitivity by formally treating the Standard Model the way it has always been thought of: as an effective field theory supplemented by higher-dimensional operators. This approach parametrizes all possible ways decoupled new physics may enter in experimental observables. In this talk we place limits on a complete basis of dimension-6 operators from electroweak precision tests at LEP, as well as triple-gauge couplings and Higgs measurements at the Tevatron and LHC.

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ties