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MUSiC - A Generic Search for Deviations from Monte Carlo Predictions in CMS CARSTEN HOF, RWTH Aachen University, THE CMS COLLABORATION — We present a model independent analysis approach, systematically scanning the data for deviations from the Standard Model Monte Carlo expectation. Such an analysis can contribute to the understanding of the CMS detector and the tuning of the event generators. Furthermore, due to the minimal theoretical bias this approach is sensitive to a variety of models of new physics, including those not yet thought of. Events are classified into event classes according to their particle content (muons, electrons, photons, jets and missing transverse energy). A broad scan of various distributions is performed, identifying significant deviations from the Monte Carlo simulation. We outline the importance of systematic uncertainties, which are taken into account rigorously within the algorithm. Possible detector effects and generator issues, as well as models involving supersymmetry and new heavy gauge bosons have been used as an input to the search algorithm.

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