

HiggsSignals: Testing new physics models against Higgs measurements

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The public computer tool *HiggsSignals* evaluates the chi-squared compatibility of the Higgs sector predictions of new physics models with the mass and rate measurements of the 125 GeV Higgs boson discovered at the LHC. It is designed for the application to extended Higgs sectors and automatically considers potential signal overlap of multiple Higgs bosons. The chi-squared test takes into account detailed information on experimental signal efficiencies (if known) and the correlations of some of the major systematic uncertainties. The program complements the related public tool *HiggsBounds*, which tests the Higgs sector predictions against exclusion limits from LEP, Tevatron and the LHC. Together, these tools provide a convenient and complete framework for confronting new physics models with the experimental Higgs results.

In the talk we shall introduce the program *HiggsSignals*, discuss some recent developments and present a few example applications.

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