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GAMBIT: The Global and Modular BSM Inference Tool

Tuesday 9 May 2017 18:00 (15 minutes)

The Global and Modular Beyond-the-Standard Model Inference Tool (GAMBIT)
is an open-source tool for performing global fits in generic Beyond the Standard Model theories. GAMBIT is
the amalgamation of frontline scanner algorithms, advanced calculations of physical observables and likeli-
hoods, and a flexible and powerful interface with the user and external codes. Due to the deep modularity of
the code, GAMBIT allows the addition of user-made models, observables and scanners in a highly simplistic
manner, as well as the usage of any extenal backend tool, easily embedded and run in unison. In this talk I
will introduce the main features of GAMBIT, briefly describing the core and internal structure of the code. I
will also present the first preliminary results obtained with GAMBIT regarding global fits on a CMSSM and
a Singlet Dark Matter model. Lastly I will discuss the plans for future extensions and improvements of the
code, along with the steps made towards expanding the set of models covered and the inclusion of new physics
sectors.

Summary

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