

## Testing fundamental theories with global fits

We all want to build fundamental theories and test them against experimental data. Testing our theories is made challenging, however, by the fact that our theories often have many unknown Lagrangian parameters and that the constraints come from numerous sophisticated experiments in collider physics, astrophysics and cosmology. Thus, exploring the parameter spaces of our models and correctly combining experimental constraints requires careful application of statistical principles and computational methods. In this talk, I describe the GAMBIT community and software framework for achieving these goals, and showcase results from recent global fits of fundamental theories.

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