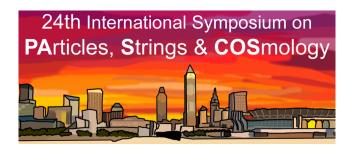
## PASCOS 2018, Case Western Reserve University, Cleveland, USA



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## **Current and Future Constraints on Higgs Couplings**

Tuesday 5 June 2018 14:40 (20 minutes)

We perform a Bayesian statistical analysis of the constraints on the Higgs couplings given by the Higgs electroweak chiral Lagrangian. We obtain bounds on the effective coefficients entering in Higgs observables at the leading order, using all available Higgs-boson signal strengths from the LHC runs 1 and 2 including data reported at Moriond 2018. Using a prior dependence study of the solutions, we discuss the results within the context of natural-sized Wilson coefficients. The effective theory we study is closely related to the experimental kappa-framework, which we also discuss. We further study the expected sensitivities to the different Wilson coefficients at various possible future colliders.

**Presenter:** KRAUSE, Claudius (Fermilab) **Session Classification:** Parallel 1