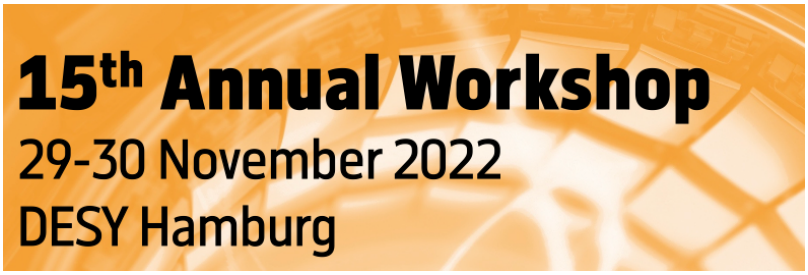

Contribution ID: **24** Type: **not specified**

Increased CP sensitivity with a neural network constructed observable in an effective Higgs-gluon coupling

Tuesday 29 November 2022 12:05 (20 minutes)

The Higgs sector is a prominent candidate for providing additional sources of CP violation beyond the SM. The cleanest way to constrain the amount of CP violation is by measuring CP-odd observables. However, most of the current analyses do not take into account the full kinematics of the processes. We present an approach in which a CP-odd observable can be constructed from the output of a neural network that has been trained on recognizing the CP structure of BSM events. Focusing on the CP structure of the Higgs-gluon coupling, we compare the sensitivity of this approach to a more traditional CP-odd observable.

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