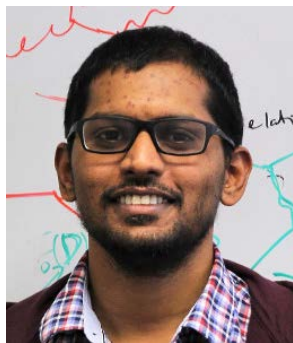


# Probing BSM physics in HVV couplings at LHC



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We analyse the  $hVV$  ( $V = W, Z$ ) vertex in a model independent way using  $Vh$  production. To that end, we consider possible corrections to the Standard Model Higgs Lagrangian, in the form of higher dimensional operators which parametrise the effects of new physics. In our analysis, we pay special attention to linear observables that can be used to probe CP violation in the same. By considering the associated production of a Higgs boson with a vector boson ( $W$  or  $Z$ ), we use jet substructure methods to define angular observables which are sensitive to new physics effects, including an asymmetry which is linearly sensitive to the presence of CP odd effects.

Thursday

February 16

4:00 P.M.

Rm 415 NSH