

Theory: Invisible Higgs in ZH + VBF

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The direct invisible Higgs bounds are driven by two main searches at hadron colliders: WBF and ZH. For the WBF, we will present some recent progress made on the Monte Carlo modelling and show the prospects of this measurement at the 100 TeV NIMATRON. For the ZH, we will show that loop-induced components for both the signal and background present phenomenologically relevant contributions to invisible limits. In addition, we derive the constraining power of this channel to Simplified Models for Dark Matter with scalar and pseudo-scalar mediators.

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