

Search for the Standard Model Higgs boson in final states with b quarks at the Tevatron

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We present the result of searches for a low mass Standard Model Higgs boson produced in association with a W or a Z boson at a center-of-mass energy of $\sqrt{s} = 1.96$ -TeV with the CDF and D0 detectors at the Fermilab Tevatron collider. The search is performed in events containing one or two b -tagged jets in association with either two leptons, or one lepton and an imbalance in transverse energy, or simply a large imbalance in transverse energy. Datasets corresponding to up to 8.5 -fb⁻¹ of integrated luminosity are considered in the analyses. These are the most powerful channels in the search for a low mass Higgs boson at the Tevatron. Recent sensitivity improvements will be discussed.

Primary author: Dr MARIOTTI, Chiara (INFN Torino)

Presenter: POTAMIANOS, Karolos

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