

bH/A(bb) analysis summer 2014

bH/A(bb) Analysis

This analysis is aimed to search for heavy neutral Higgs bosons H^0/A^0 in the MSSM SUSY models where H^0/A^0 is produced in association with another b quark, while the H^0/A^0 decays to $b+b\bar{b}$ pair, so that the analysis is a final state with 3 tagged b jets. A general introduction of the physics motivation and associated literature can be found on the [analysis summary confluence page](#). This analysis is heading for a result with the bulk of 2012 data sample by late 2014 as the Ph.D thesis of Katie Malone. The current analysis is concentrating on a particular trigger that emphasizes the sensitivity for high mass region. The aim of this project is to examine data collected in early 2012 with a looser trigger and a different trigger throughout the 2012 run that could bring improved sensitivity of the search on the intermediate H/A mass range. The project will involve analysis on MC and data to evaluate the additional sensitivities from these data samples.

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