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## **$t\bar{t}$ production process as a background to standard ModelHiggs decay to $WW^*$**

*Thursday, 22 January 2009 15:20 (15 minutes)*

I will briefly describe, first, the current status of the  $H \rightarrow WW^*$  analysis in CMS and discuss about its main news and messages. Concentration will be more on our group contribution in this analysis and the results obtained so far. In the second (and main) part of the talk, I will focus on the  $t\bar{t}$  background as one of the main background processes of  $H \rightarrow WW$  events. Therefore the approach for  $t\bar{t}$  background measurement is described by introducing a control region and optimizing selection cuts which enhance this background and then using extrapolation of errors the total uncertainty of this background in the Higgs signal region is estimated. At the end I will discuss about possible improvements and development of the analysis and then a final conclusion is made.

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