

# Search for the Standard Model Higgs Boson at CMS

*Tuesday 18 August 2009 14:00 (1 minute)*

## Please give a brief summary of your poster

Abstract: The prospects for the search of the Standard Model Higgs boson in various decay channels ( $H \rightarrow WW$ ,  $H \rightarrow ZZ$ ,  $H \rightarrow \gamma\gamma$ ,  $H \rightarrow \tau\tau$ ) with the CMS experiment at the LHC are presented. The analyses rely on a full simulation of the detector response and emphasis is put on data driven methods for the measurement of experimental and background wherever possible. The monte carlo generators that are used in the studies are NLO. The discovery reach is presented as a function of the Higgs mass. A new complete strategy is presented for the early searches and for the control of systematics at very low luminosities. Latest projections show that CMS should be able to observe an excess in several different searches with 100/pb-1/fb of integrated luminosity.

**Primary author:** Dr MERKEL, Petra (Purdue University)

**Presenter:** Dr MERKEL, Petra (Purdue University)

**Session Classification:** Poster Session

**Track Classification:** Poster Session