

# $h \rightarrow \tau^+ \tau^-$ BR Study Status

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- No significant update in this week due to other work...
- Latest results can be found at LCWS14 (or next page)
- Still working on 250 GeV  $\nu\bar{\nu}h$ 
  - expecting 30 - 40 % of  $\frac{\Delta(\sigma \times \text{BR})}{(\sigma \times \text{BR})}$ , will be better than  $M_h = 120$  GeV analysis
- Schedule:
  - finalize 250 GeV  $\nu\bar{\nu}h$ , then 250 GeV  $e^+e^-h$  and  $\mu^+\mu^-h$ , then 500 GeV

# Current Numbers

250 GeV 250 fb <sup>-1</sup>	$q\bar{q}h$	$\nu\bar{\nu}h$	$e^+e^-h$	$\mu^+\mu^-h$
$\frac{\Delta(\sigma \times \text{BR})}{(\sigma \times \text{BR})}$	<b>3.4%</b>	46.0%	16.1%	14.7%

Today's talk

Extrapolation from  $M_h = 120$  GeV  
Cut-based only  
will be analyzed with new sample

500 GeV 500 fb <sup>-1</sup>	$q\bar{q}h$	$\nu\bar{\nu}h$	$e^+e^-h$	$\mu^+\mu^-h$
$\frac{\Delta(\sigma \times \text{BR})}{(\sigma \times \text{BR})}$	4.7%	6.8%	31.2%	17.6%

will be re-analyzed with new sample