

$$\Delta\hat{\mu}/\Delta\hat{\mu}_{\text{tot}}$$

-0.3 -0.2 -0.1 0 0.1 0.2 0.3

Yield (Theory): PDF (ggH)  
 Yield (Theory): branching ratio  
 Resolution (Exp): constant term  
 Yield (Theory) : scales (ggH)  
 Resolution (Exp): material modeling  
 Yield (Exp): luminosity (2012)  
 Migration (Theory) : ggF three jets  
 Yield (Exp): photon ID (2011)  
 Resolution (Exp) : sampling term  
 Background modelling : Central - low  $p_{\text{T}}$   
 Migration (Theory) : ggF two jets  
 Yield (Exp): photon isolation (2012)  
 Migration (Exp): JES (EtaInterCal)  
 Background modelling : VBF loose  
 Yield (Exp): photon ID (2012)  
 Resolution (Exp): noise term  
 Migration (Theory): UE+PS  
 Yield (Theory) : Higgs pt (ggH)  
 Yield (Theory) : PDF(qqH)  
 Background modelling: Forward - low  $p_{\text{T}}$

**ATLAS**

$$\int \text{Ldt} = 4.5 \text{ fb}^{-1}, \sqrt{s} = 7 \text{ TeV}$$

$$\int \text{Ldt} = 20.3 \text{ fb}^{-1}, \sqrt{s} = 8 \text{ TeV}$$

$$H \rightarrow \gamma\gamma, m_H = 125.4 \text{ GeV}$$

—●— Pull

Yellow box Prefit Impact on  $\hat{\mu}$

Blue hatched box Postfit Impact on  $\hat{\mu}$

-2 -1.5 -1 -0.5 0 0.5 1 1.5 2

$$(\hat{\theta} - \theta_0)/\Delta\theta$$