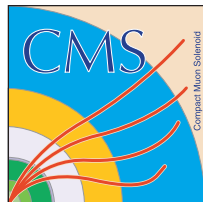


CMS-PAS-HIG-14-002 Collider Cross Talk

Christopher B. Martin¹ for the CMS Collaboration

¹Johns Hopkins University

March 27, 2014



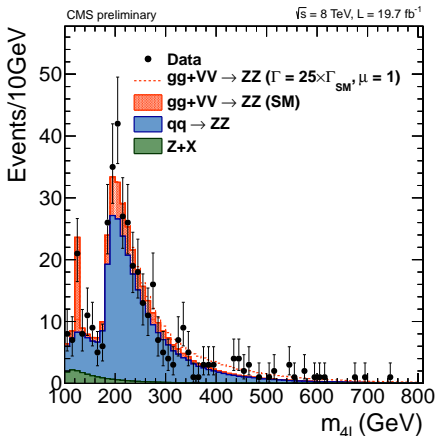
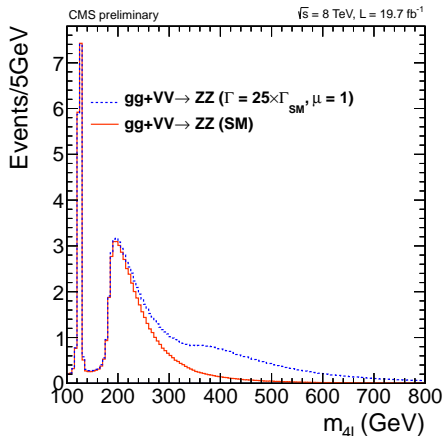


- ▶ On-peak / off-peak cross sections & a ratio
- ▶ Interference
- ▶ MC and Higer Order Corrections
- ▶ $H \rightarrow ZZ \rightarrow 4\ell$
- ▶ $H \rightarrow ZZ \rightarrow 2\ell 2\nu$
- ▶ Results

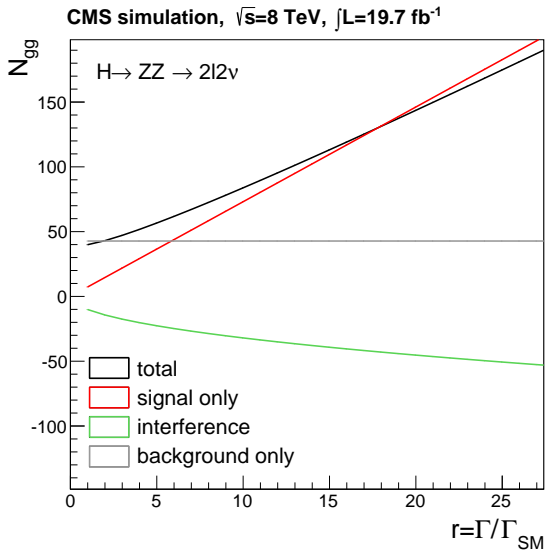


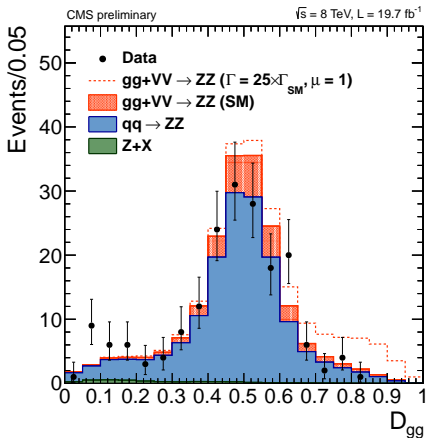
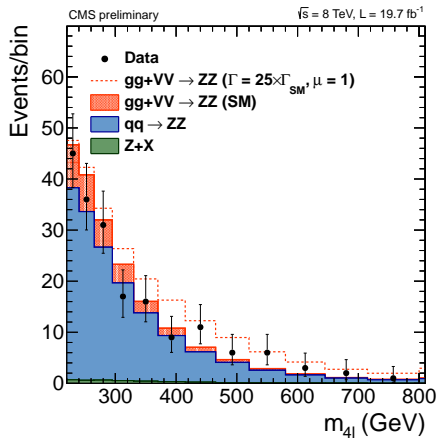
- ▶ Kauer & Passarino arXiv:1206.4803
- ▶ Kauer arXiv:1305.2092
- ▶ Cola & Melnikov arXiv:1307.4935
- ▶ Bonvini et al arXiv:1304.3053
- ▶ Campell, Ellis, & Williams arXiv:1311.3589
- ▶ CMS-PAS-HIG-14-002

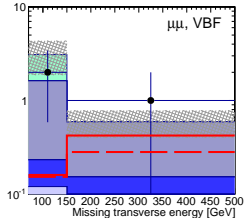
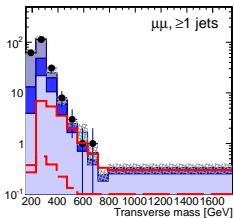
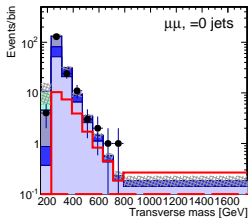
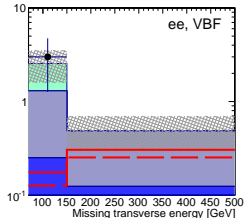
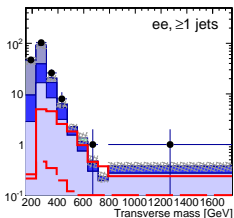
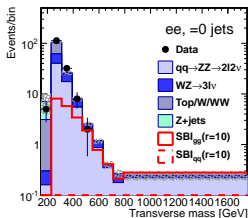
On-peak / off-peak cross sections & a ratio



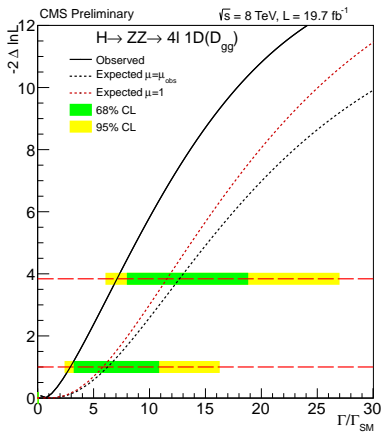
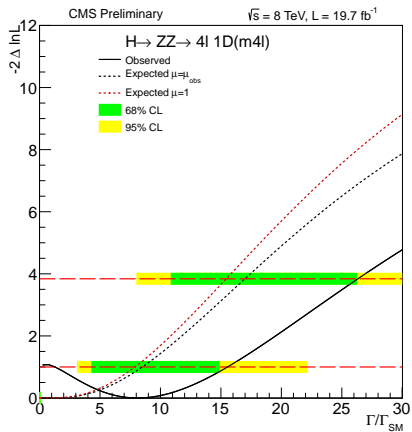
Interference



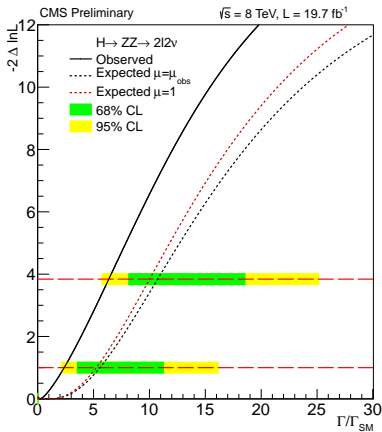
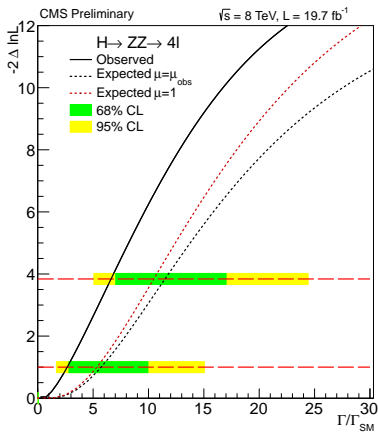


$H \rightarrow ZZ \rightarrow 2\ell 2\nu$ CMS preliminary, $\sqrt{s}=8.0$ TeV, $|L|=19.7$ fb $^{-1}$ 

Results 1D $H \rightarrow ZZ \rightarrow 4l$ 1D(m4l)



Results Individual channels



Results Combined

