



**Observing Higgs: ATLAS CMS**

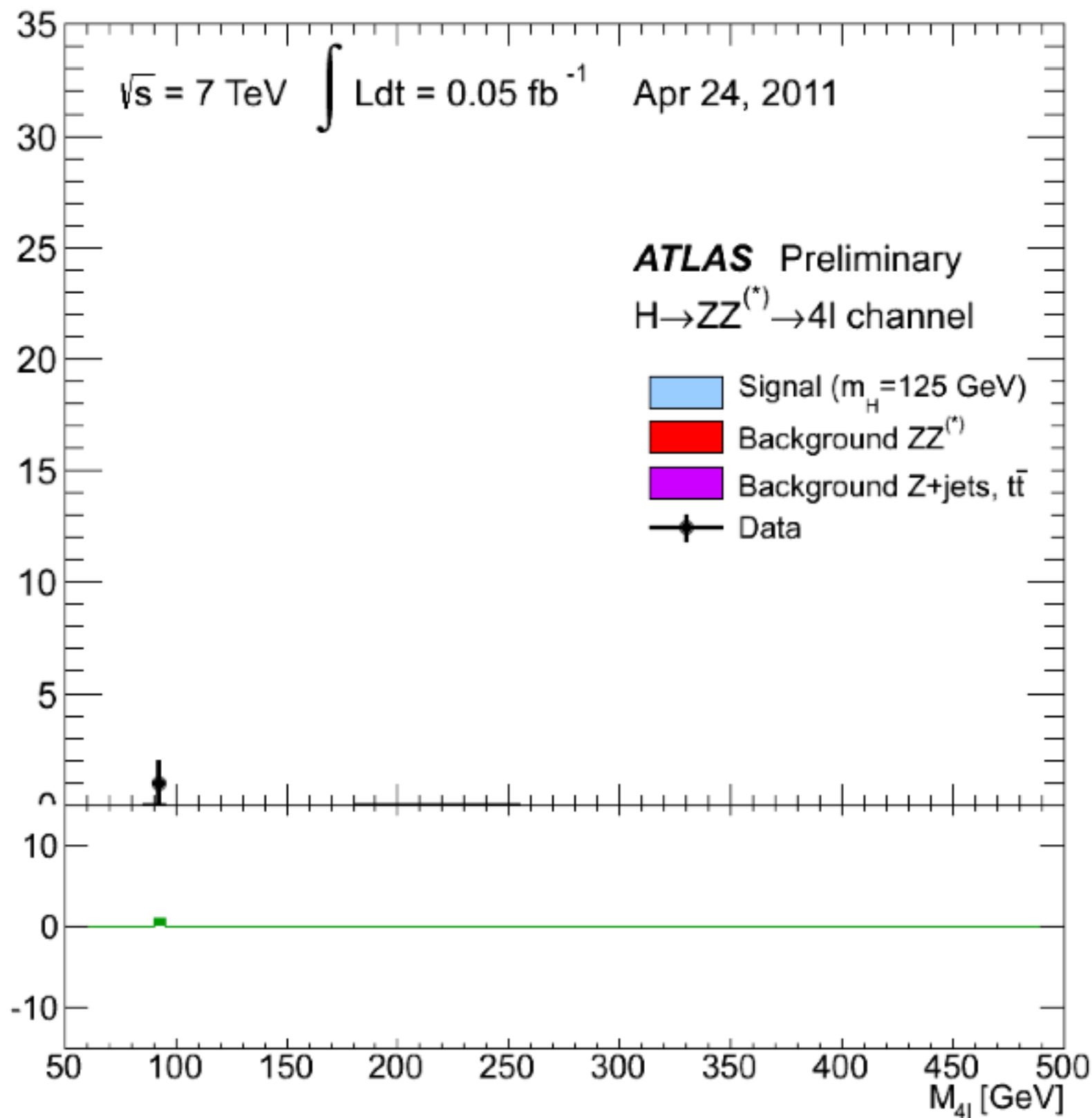
Events / 5 GeV

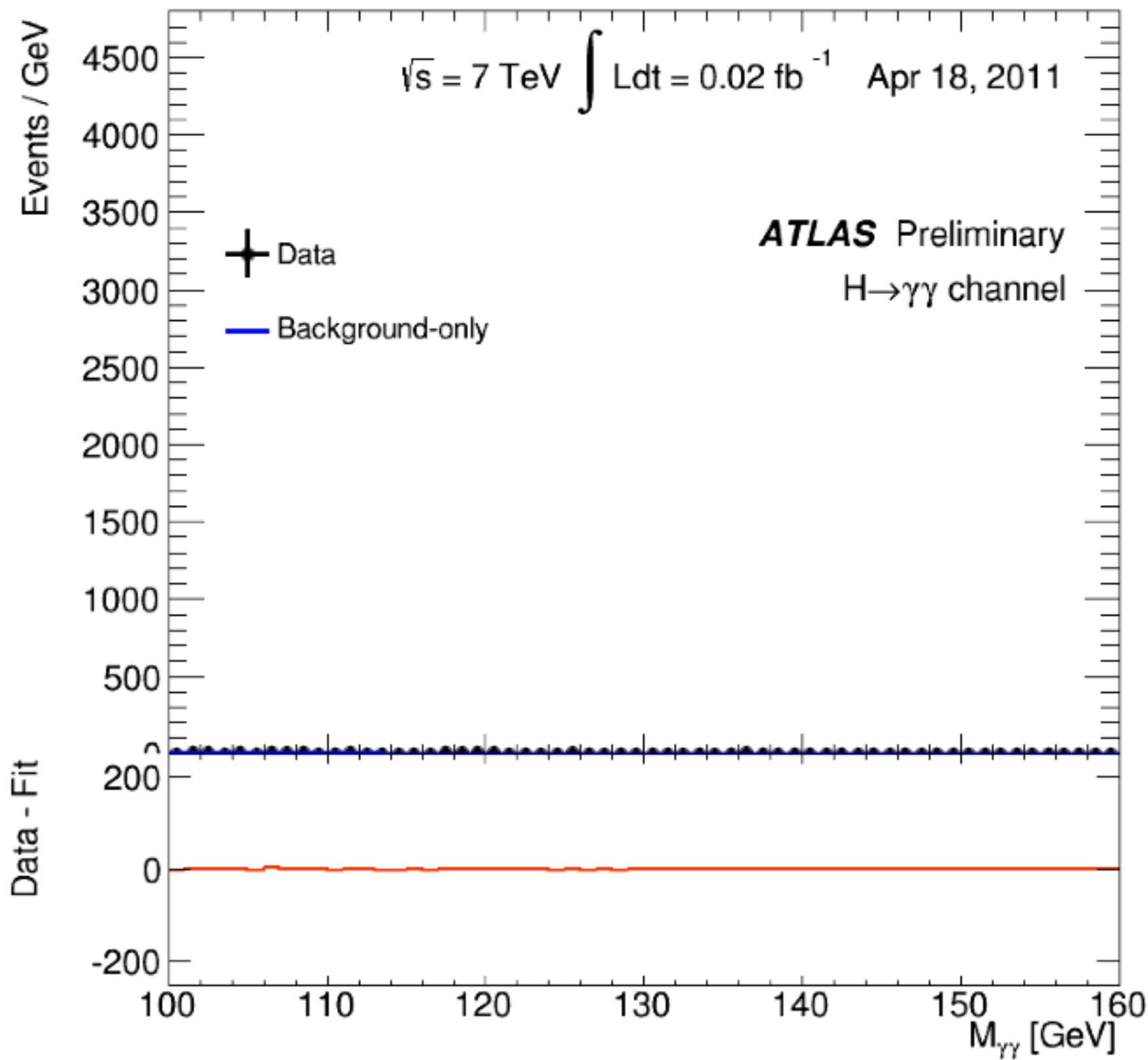
$\sqrt{s} = 7 \text{ TeV}$   $\int \mathcal{L} dt = 0.05 \text{ fb}^{-1}$  Apr 24, 2011

**ATLAS** Preliminary  
 $H \rightarrow ZZ^{(*)} \rightarrow 4l$  channel

- Signal ( $m_H = 125 \text{ GeV}$ )
- Background  $ZZ^{(*)}$
- Background  $Z + \text{jets}, t\bar{t}$
- Data

Data - Background









Peter Higgs Francis Englert recibiendo el Premio Nobel de Física en 2013 por el descubrimiento

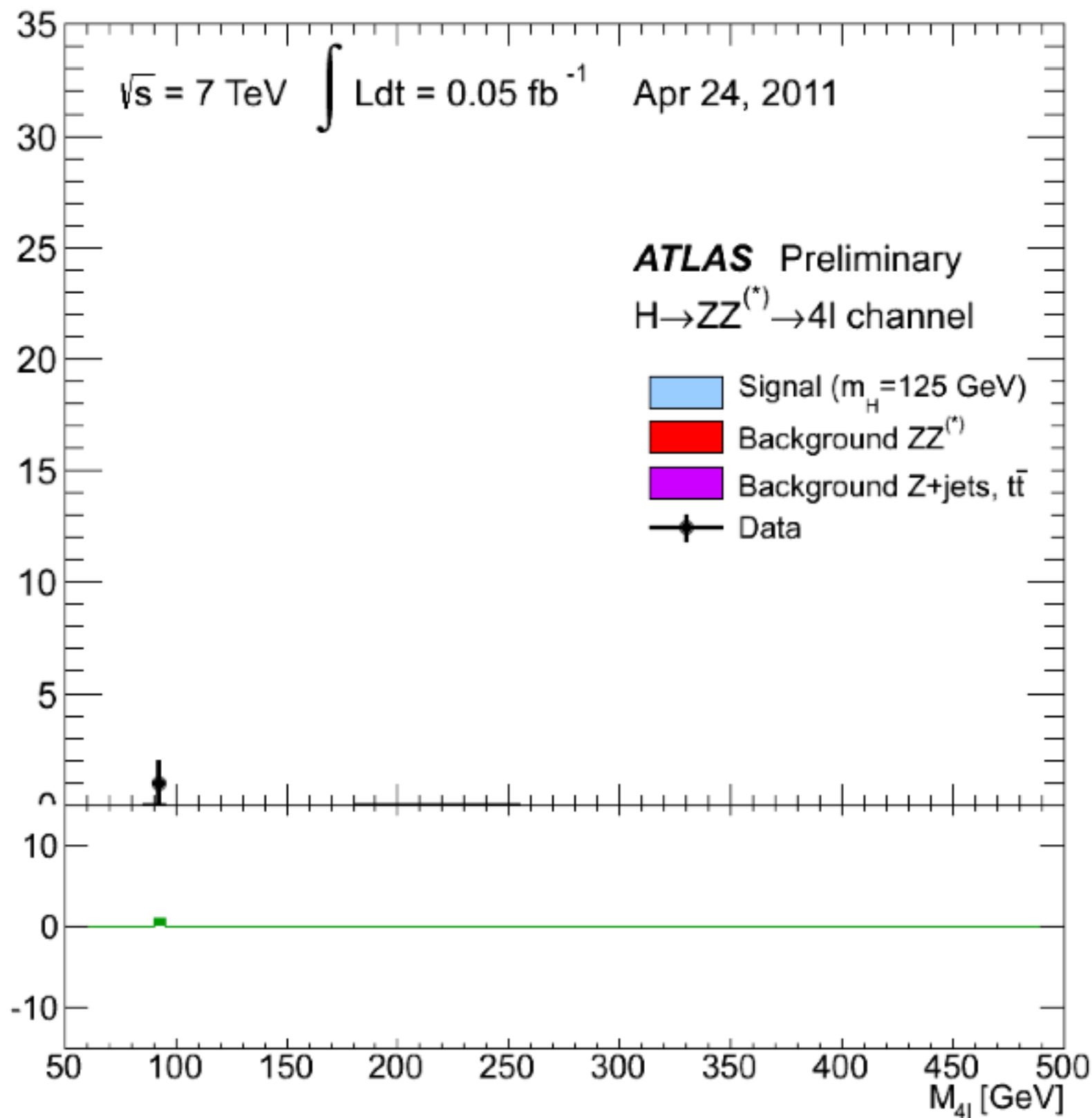
Events / 5 GeV

$\sqrt{s} = 7 \text{ TeV}$   $\int \text{Ldt} = 0.05 \text{ fb}^{-1}$  Apr 24, 2011

**ATLAS** Preliminary  
 $\text{H} \rightarrow \text{ZZ}^{(*)} \rightarrow 4\text{l}$  channel

- Signal ( $m_{\text{H}} = 125 \text{ GeV}$ )
- Background  $\text{ZZ}^{(*)}$
- Background  $\text{Z+jets, } t\bar{t}$
- Data

Data - Background



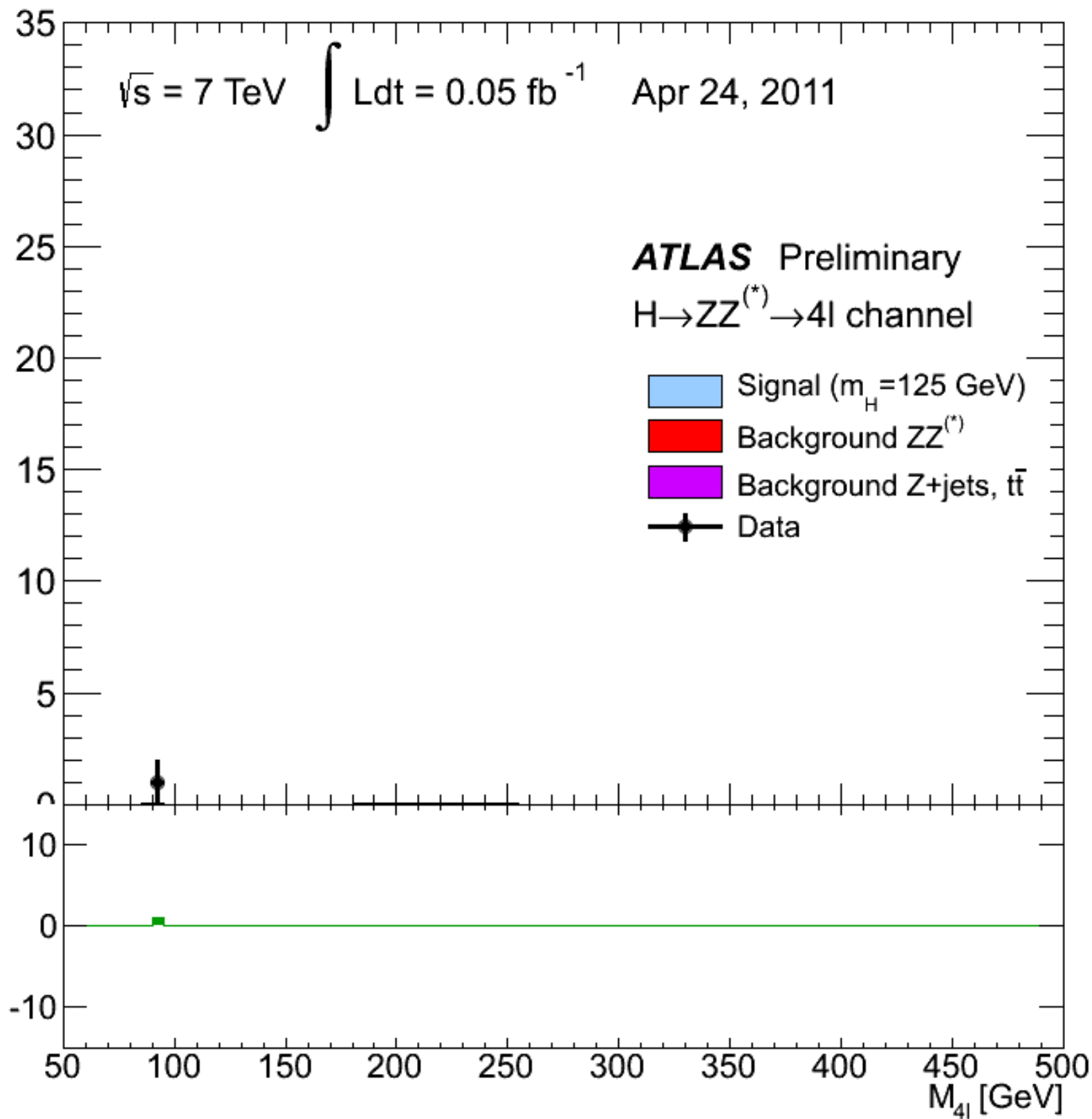
Events / 5 GeV

$\sqrt{s} = 7 \text{ TeV}$   $\int \mathcal{L} dt = 0.05 \text{ fb}^{-1}$  Apr 24, 2011

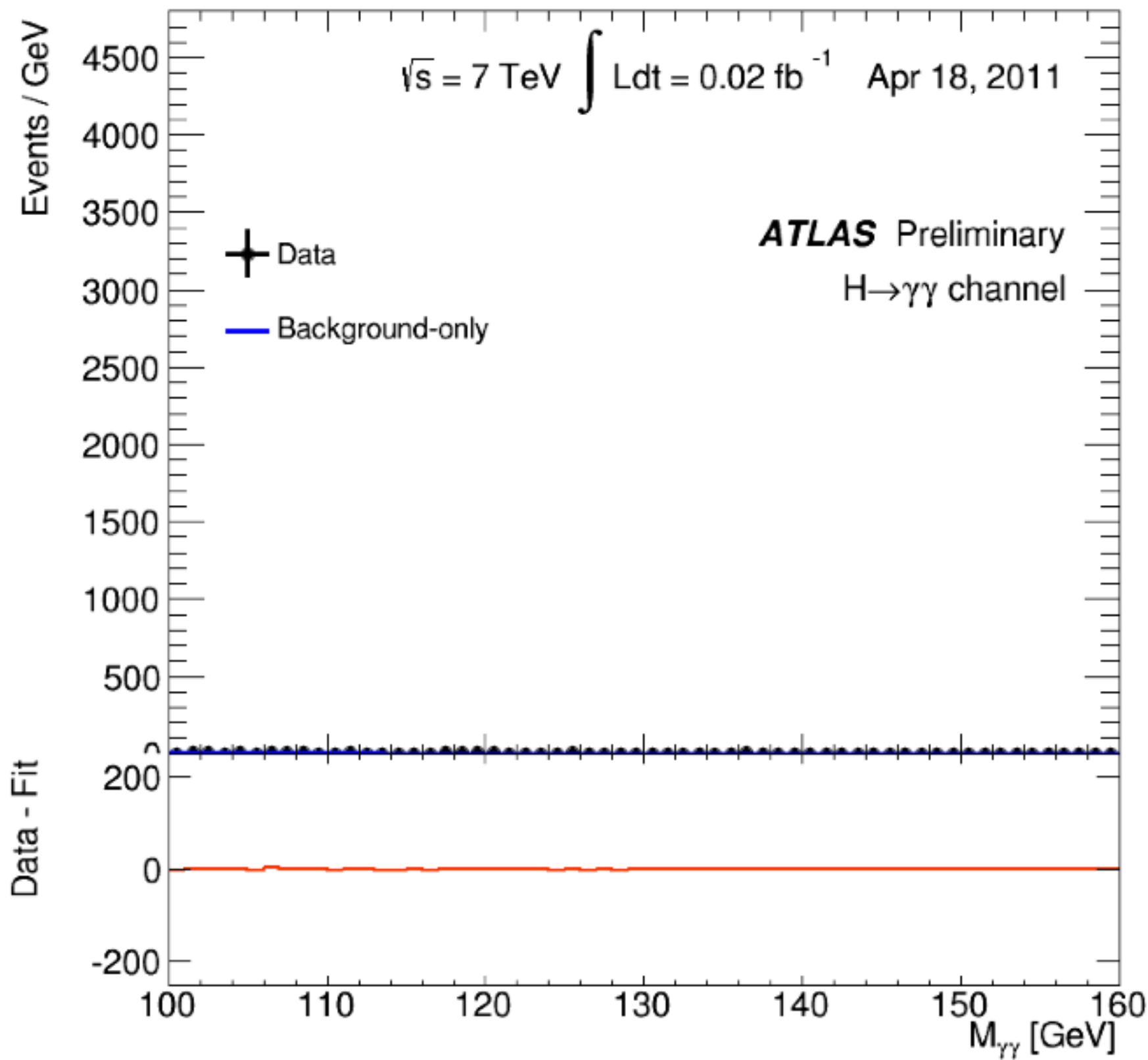
**ATLAS** Preliminary  
 $H \rightarrow ZZ^{(*)} \rightarrow 4l$  channel

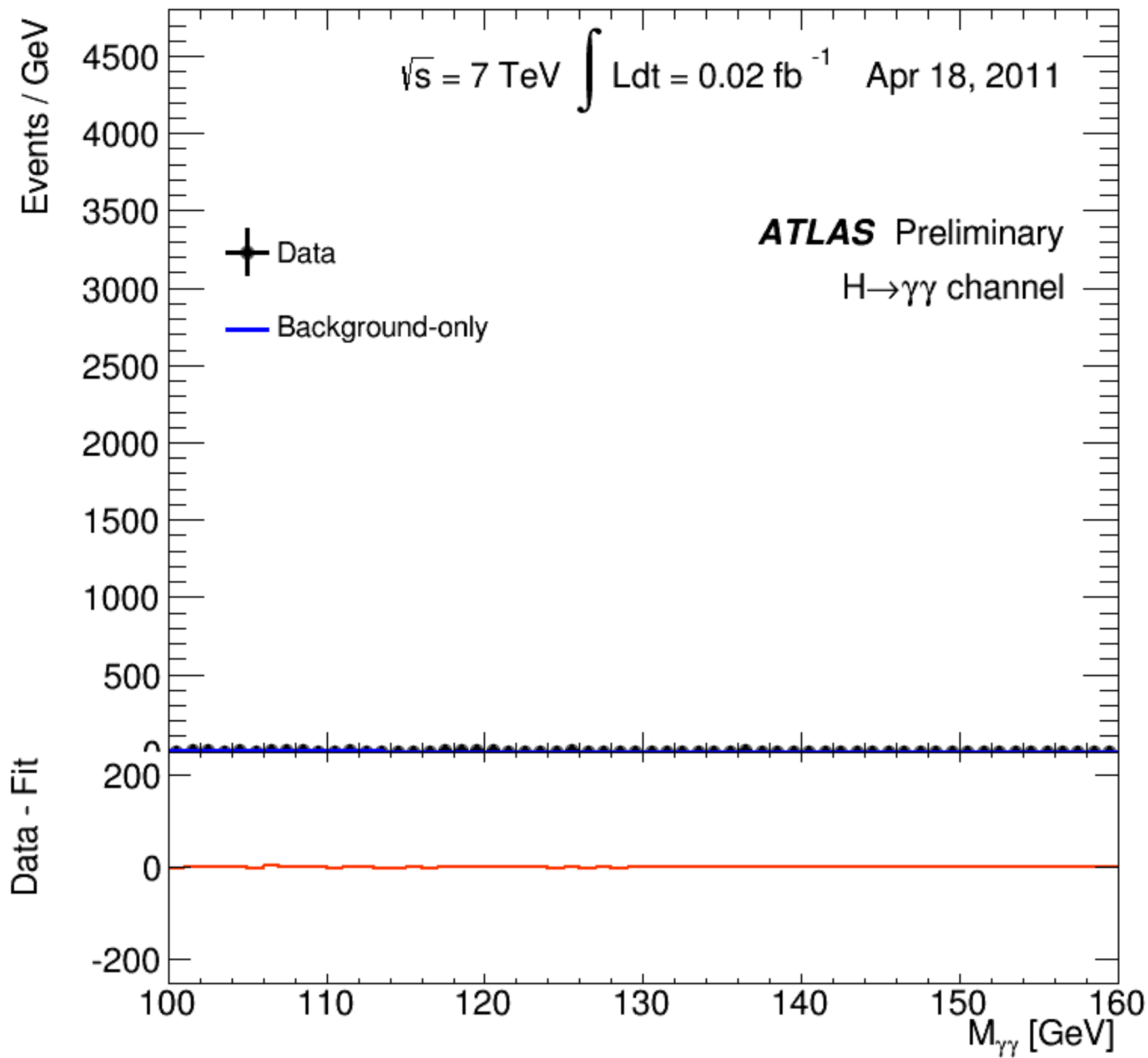
- Signal ( $m_H = 125 \text{ GeV}$ )
- Background  $ZZ^{(*)}$
- Background  $Z + \text{jets}, t\bar{t}$
- Data

Data - Background











# O descobrimento do Higgs: ATLAS E CMS



Peter Higgs e François Englert reciben o Premio Nobel de Física no 2013 por este descubrimento!

# DATOS SOBRE O CERN E O LHC