The plot shows the distribution of events for the process $H \rightarrow \gamma\gamma$ with a simulation model. The mass resolution is indicated by the FWHM of 3.17 GeV. The effective cross-section, $\sigma_{\text{eff}} = 1.61$ GeV, is also noted. The CMS Simulation Preliminary report is displayed at the top.

**Graph Details:**
- **Y-axis:** Events / (0.5 GeV)
- **X-axis:** $m_{\gamma\gamma}$ (GeV)
- **Legend:**
  - Simulation
  - Parametric model
  - $\sigma_{\text{eff}} = 1.61$ GeV
  - FWHM = 3.17 GeV