$pp \rightarrow h \rightarrow 2n_1 \rightarrow 2n_D + 2\gamma_D \rightarrow 2n_D + 4\mu$ Fraction of events / 1 Ge\ 0.05 $m_h = 125 \text{ GeV}, m_{n_s} = 10 \text{ GeV}, m_{n_h} = 1 \text{ GeV}$ m_{γ_D} = 20 GeV, $c\tau_{\gamma_D}$ = 1000 mm 0.04 0.03 0.02 0.01 20 40 60 120 80 100 Mass of Fake μμ [GeV]

CMS Simulation (LHE) 14TeV TeV