CMS Simulation (LHE) 13 TeV $pp \rightarrow h \rightarrow 2n_1 \rightarrow 2n_D + 2\gamma_D \rightarrow 2n_D + 4\mu$ 0.035 O $m_h = 125 \text{ GeV}, m_{n_s} = 10 \text{ GeV}, m_{n_D} = 1 \text{ GeV}$ $m_{\gamma_{\scriptscriptstyle D}} = 5$ GeV, $c\tau_{\gamma_{\scriptscriptstyle D}} = 0.5$ mm Fraction of events / 1 0.03 0.02 0.01 0.03 0.005 20 40 80 120 60 100 Mass of Fake μμ [GeV]