CMS Simulation (LHE) 13 TeV $pp \rightarrow h \rightarrow 2n_1 \rightarrow 2n_D + 2\gamma_D \rightarrow 2n_D + 4\mu$ Fraction of events / 1 GeV $m_h = 125 \text{ GeV}, m_{n_s} = 10 \text{ GeV}, m_{n_D} = 1 \text{ GeV}$ $m_{\gamma_2} = 0.25 \text{ GeV}, c\tau_{\gamma_2} = 2 \text{ mm}$ 0.04 0.03 0.02 0.01 20 40 120 60 80 100 Mass of Fake μμ [GeV]