CMS Simulation (LHE) 13 TeV $pp \rightarrow h \rightarrow 2h_1 \rightarrow 2h_D + 2\gamma_D \rightarrow 2h_D + 4\mu$ Fraction of events / 1 GeV $m_h = 125 \text{ GeV}, m_{n_s} = 10 \text{ GeV}, m_{n_D} = 1 \text{ GeV}$ 0.05 $m_{\gamma_{D}} = 5$ GeV, $c\tau_{\gamma_{D}} = 0$ mm 0.04 0.03 0.02 0.01 40 30 50 60 80 90