CMS Simulation (LHE) 13 TeV $|pp| \rightarrow h \rightarrow 2h_1 \rightarrow |2h_D + 2\gamma_D \rightarrow 2h_D + 4\mu$ 0.045 Fraction of events / 1 GeV $m_h = 125 \text{ GeV}, m_{n_s} = 10 \text{ GeV}, m_{n_p} = 1 \text{ GeV}$ $m_{\gamma_2} = 0.7 \text{ GeV}, c\tau_{\gamma_2} = 0 \text{ mm}$ 0.04 0.035 0.03 0.025 0.02 0.015 0.01 0.005 30 40 50 60 90 80