CMS Simulation (LHE) 14TeV TeV $|pp| \rightarrow |h| \rightarrow |2h_1| \rightarrow |2h_D| + |2\gamma_D| \rightarrow |2h_D| + |4\mu|$ Normalized Fraction of Events / 40.04mm Social Soci $m_h = 125 \text{ GeV}, m_{n_s} = 50 \text{ GeV}, m_{n_s} = 1 \text{ GeV}$ m_{γ_D} = 20 GeV, $c\tau_{\gamma_D}$ = 100 mm 100 150 200 250 300 350 400 450 500