CMS Simulation (LHE) 14TeV TeV ot events / 1 GeV 0.035 0.025 0.02 $|pp| \rightarrow |h| \rightarrow |2h_1| \rightarrow |2h_D| + |2|\gamma_D| \rightarrow |2h_D| + |4\mu|$ 0.04 $m_h = 125 \text{ GeV}, m_{n_s} = 10 \text{ GeV}, m_{n_D} = 1 \text{ GeV}$ $m_{\gamma_{D}}$ = 20 GeV, $c\tau_{\gamma_{D}}$ = 100 mm -1st dark photon (leading p₊) 2nd dark photon raction, 0.005 40 30 50 80 90