## CMS Simulation (LHE) 14 TeV $pp \rightarrow h \rightarrow 2h_1 \rightarrow 2h_D + 2\gamma_D \rightarrow 2h_D + 4\mu$ Normalized Fraction of events (21000.0 mm) $m_h = 125 \text{ GeV}, m_{n_1} = 50 \text{ GeV}, m_{n_D} = 1 \text{ GeV}$ $m_{\gamma_{D}} = 20 \text{ GeV}, c\tau_{\gamma_{D}} = 1000 \text{ mm}$ 1st dark photon (leading p<sub>T</sub>) 2nd dark photon 500 100015002000250030003500400045005000