

Fraction of events

**CMS**

- $m_S = 3$  GeV
- $m_S = 7$  GeV
- $m_S = 15$  GeV
- $m_S = 40$  GeV
- $m_S = 55$  GeV
- OOT data (time < -12.5 ns)

Signal region

 $S \rightarrow d\bar{d}$  $c\tau = 1$  m

1

10<sup>-1</sup>10<sup>-2</sup>

200

400

600

800

1000

 $N_{\text{hits}}$ 