

$\sigma$  [pb]

**CMS**

95% CL upper limits

Observed

Expected

(combination)

68% expected

95% expected

$\sigma_{\text{Theory}}^{\text{LO}}$

Expected (AH)

Expected (SL)

Expected (DL)

Scalar  $\phi \rightarrow \chi\bar{\chi}$

$g_q = g_\chi = 1$

Dirac DM,  $m_\chi = 1 \text{ GeV}$

1

$10^{-1}$

$10^{-2}$

50 100 150 200 250 300 350 400 450 500

$m_\phi$  [GeV]

