

CMS $2.3 \text{ fb}^{-1} (13 \text{ TeV})$ $m_{\tilde{\chi}_1^0} [\text{GeV}]$ 900
800
700
600
500 $pp \rightarrow \tilde{t}\tilde{t} / \tilde{b}\tilde{b}$ NLO+NLL exclusion--- Expected
— Observed

- $pp \rightarrow \tilde{b}_1\tilde{b}_1, \tilde{b}_1 \rightarrow b\tilde{\chi}_1^0$
- $pp \rightarrow \tilde{t}_1\tilde{t}_1, \tilde{t}_1 \rightarrow t\tilde{\chi}_1^0 / b\tilde{\chi}_1^\pm$
- $pp \rightarrow \tilde{t}_1\tilde{t}_1, \tilde{t}_1 \rightarrow t\tilde{\chi}_1^0$
- $pp \rightarrow \tilde{t}_1\tilde{t}_1, \tilde{t}_1 \rightarrow b f' \tilde{\chi}_1^0$ (4-body phase space)
- $pp \rightarrow \tilde{t}_1\tilde{t}_1, \tilde{t}_1 \rightarrow c\tilde{\chi}_1^0 / b f' \tilde{\chi}_1^0$
- $pp \rightarrow \tilde{t}_1\tilde{t}_1, \tilde{t}_1 \rightarrow c\tilde{\chi}_1^0$

400
300
200
100
0

$$\Delta m_1 \equiv m_{\tilde{t}} - m_{\tilde{\chi}_1^0} = m_t$$

$$\Delta m_2 \equiv m_{\tilde{t}} - m_{\tilde{\chi}_1^0} = m_W$$

 Δm_2 Δm_1

100

200

300

400

500

600

700

800

900

 $m_{\tilde{t}} / m_{\tilde{b}} [\text{GeV}]$ 