

$\tilde{\chi}_2^0 - \tilde{\chi}_1^\pm$ production

CMS Preliminary

$\sqrt{s} = 8 \text{ TeV}$

LSP mass [GeV]

— SUS-13-006 19.5 fb⁻¹

⋯ SUS-14-002 19.5 fb⁻¹

— Observed

- - - Expected

⋯ $\tilde{\chi}_2^0 \tilde{\chi}_1^\pm \rightarrow (\text{H } \tilde{\chi}_1^0)(\text{W } \tilde{\chi}_1^0)$

— $\tilde{\chi}_2^0 \tilde{\chi}_1^\pm \rightarrow (\text{Z } \tilde{\chi}_1^0)(\text{W } \tilde{\chi}_1^0)$

— $\tilde{\chi}_2^0 \tilde{\chi}_1^\pm$ ($\tilde{l}_L, BF(1^+1^-)=0.5$)

— $\tilde{\chi}_1^+ \tilde{\chi}_1^-$ ($\tilde{l}_L, BF(1^+1^-)=1$)

— $\tilde{\chi}_2^0 \tilde{\chi}_1^\pm$ ($\tilde{\nu}_i$)

— $\tilde{\chi}_2^0 \tilde{\chi}_1^\pm$ ($\tilde{l}_R, BF(1^+1^-)=1$)

$m_{\tilde{\chi}_1^\pm} = m_{\tilde{\chi}_1^0}$

$m_{\tilde{\chi}_1^\pm} = m_{\tilde{\chi}_1^0} + m_Z$

$m_{\tilde{\chi}_1^\pm} = m_{\tilde{\chi}_1^0} + m_H$

0

100

200

300

400

500

600

700

800

neutralino mass = chargino mass [GeV]

