## $TChiChipmSlepStau: pp \rightarrow \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle 1} \; \widetilde{\chi}^{\scriptscriptstyle \pm}_{\scriptscriptstyle 1} \; \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle 2} \; \widetilde{\chi}^{\scriptscriptstyle \pm}_{\scriptscriptstyle 1} \; \rightarrow l \; \widetilde{l} \; \nu \; \widetilde{\tau}, \; \widetilde{l} \rightarrow l \; \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle 1}, \; \widetilde{\tau} \rightarrow \tau \; \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle 1}, \; \widetilde{\tau}^{\scriptscriptstyle 0}_{$ $m_{\tilde{\chi}^0}, m_{\tilde{\chi}^{\pm}} = x, m_{\tilde{\tau}}, m_{\tilde{\tau}} = 0.5 * x + 0.5 * y, m_{\tilde{\chi}^0} = y$ 3 exclusion (SModelS) 350 2.5 ±20% (SModelS) 300 k-factor = 1.25 $\sigma_{ m signal}/\sigma_{ m U}$ 250 > 200 1.5 150 100 0.5 50 200 300 400 500 600 700 $\mathcal{X}$

CMS-SUS-13-006 (upperLimit)

https://twiki.cern.ch/twiki/pub/CMSPublic/PhysicsResultsSUS13006/Fig14\_exclusion\_TChiSlepSnu\_2a\_0\_5.pdf

official plot: