$\begin{array}{c} \text{ATLAS-CONF-2013-028 (upperLimit)} \\ \textit{TChiChipmStauL}: pp \rightarrow \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle 1} \ \widetilde{\chi}^{\scriptscriptstyle \pm}_{\scriptscriptstyle 1}, \ \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle 2} \ \widetilde{\chi}^{\scriptscriptstyle \pm}_{\scriptscriptstyle 1} \end{array} \rightarrow \tau \ \widetilde{\tau} \left(\ \nu \ \widetilde{\nu} \ \right) \tau \ \widetilde{\nu} \left(\ \nu \ \widetilde{\tau} \ \right), \ \widetilde{\tau} \rightarrow \tau \ \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle 1}, \ \widetilde{\nu} \rightarrow \nu \ \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle 1}, \end{array}$

 $m_{\tilde{\chi}^0}, m_{\tilde{\chi}^{\pm}} = x, m_{\tilde{\tau}}, m_{\tilde{v}} = 0.5 * x + 0.5 * y, m_{\tilde{\chi}^0} = y$ exclusion (SModelS) 180 ±20% (SModelS) 2.5 160 140 k-factor = 1.25 $oldsymbol{\sigma}_{ ext{signal}}/oldsymbol{\sigma}_{ ext{Ul}}$ 120 **>** 100 1.5 80 60 40 0.5 20

250

 χ

300

350

https://atlas.web.cern.ch/Atlas/GROUPS/PHYSICS/CONFNOTES/ATLAS-CONF-2013-028/figaux_08a.png

200

150

official plot: