$ATLAS\text{-}CONF\text{-}2013\text{-}028 \quad \text{(upperLimit)}$ $\textit{TChiChipmStauL}: pp \to \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle \gamma} \ \widetilde{\chi}^{\scriptscriptstyle \pm}_{\scriptscriptstyle \gamma}, \ \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle \gamma} \ \widetilde{\chi}^{\scriptscriptstyle \pm}_{\scriptscriptstyle \gamma} \ \to \tau \ \widetilde{\tau} \ (\ \nu \ \widetilde{\nu}\) \ \tau \ \widetilde{\nu} \ (\ \nu \ \widetilde{\tau}\), \ \widetilde{\tau} \to \tau \ \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle \gamma}, \ \widetilde{\nu} \to \nu \ \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle \gamma}, \ \widetilde{\nu}^{\scriptscriptstyle 0}_{\scriptscriptstyle \gamma}, \ \widetilde{\nu} \to \nu \ \widetilde{\chi}^{\scriptscriptstyle 0}_{\scriptscriptstyle \gamma}, \ \widetilde{\nu}^{\scriptscriptstyle 0}_{\scriptscriptstyle \gamma}$

 $m_{\tilde{\chi}^0}, m_{\tilde{\chi}^{\pm}} = x, m_{\tilde{\tau}}, m_{\tilde{v}} = 0.5 * x + 0.5 * y, m_{\tilde{\chi}^0} = y$ 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 20 150 200 250 300 350 χ official plot:

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