$\tan \beta$

CMS

$t \rightarrow H^+b, H^+ \rightarrow \tau^+ \nu_\tau$

$\tau_h$+jets final state

MSSM low-$M_H$

$m_A=110$ GeV

- Excluded
- $m_{H_{MSSM}} \neq 125\pm 3$ GeV
- Theoretically inaccessible

$19.7 \text{ fb}^{-1}$ (8 TeV)

$\beta$