Interference and VLQ

Adding Z-gamma Luminosity

$\sqrt{s} = 10\ \text{TeV}$

Legend: WW, ZZ, $Z\gamma$, $\gamma\gamma$, $Z\gamma{-}\gamma\gamma$, $Z\gamma{-}ZZ$, $Z\gamma{-}Z\gamma$

Axes: $\frac{d\sigma}{dm_{t\bar{t}}}\left[\frac{\text{ab}}{\text{GeV}}\right]$ versus $m_{t\bar{t}}\ [\text{GeV}]$
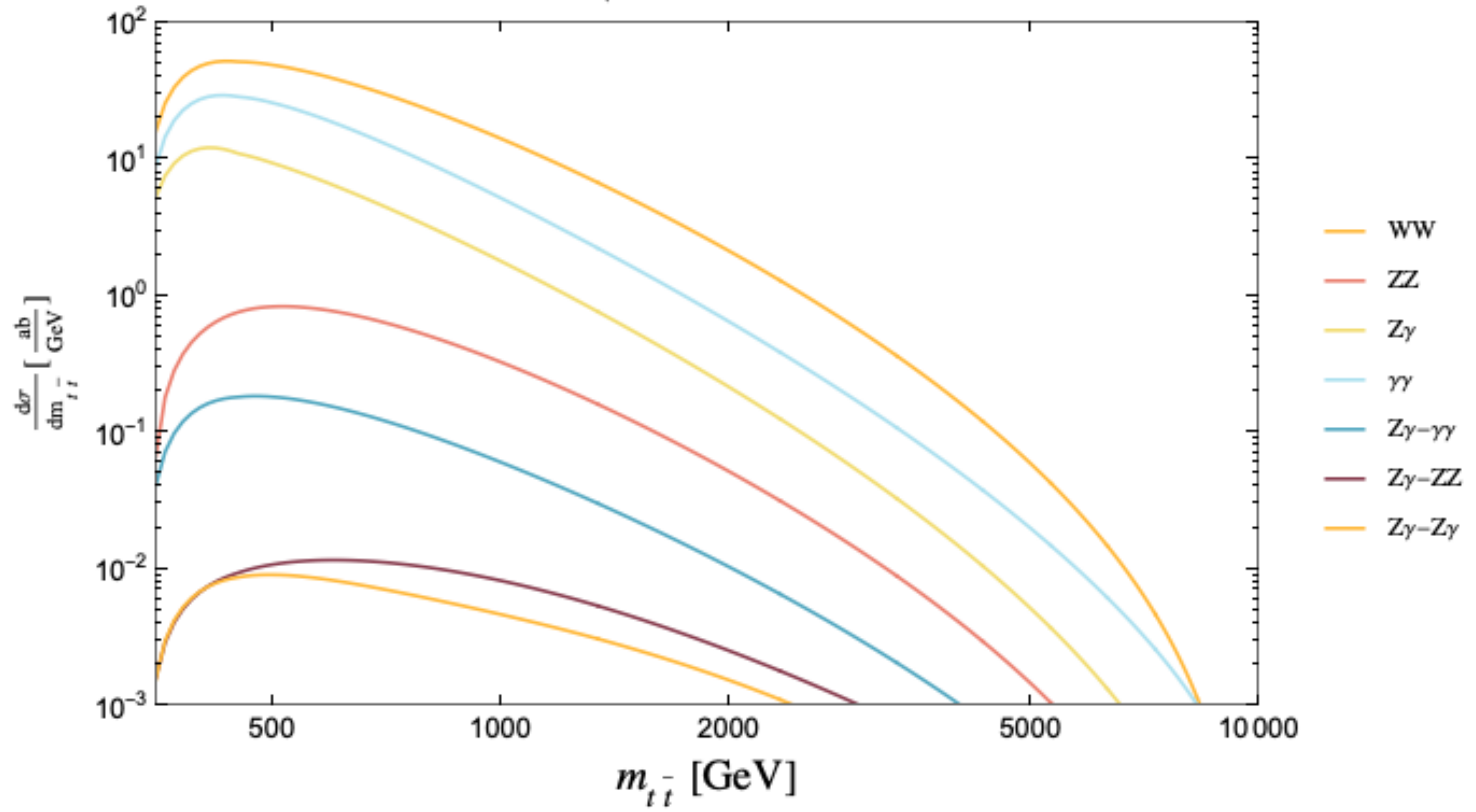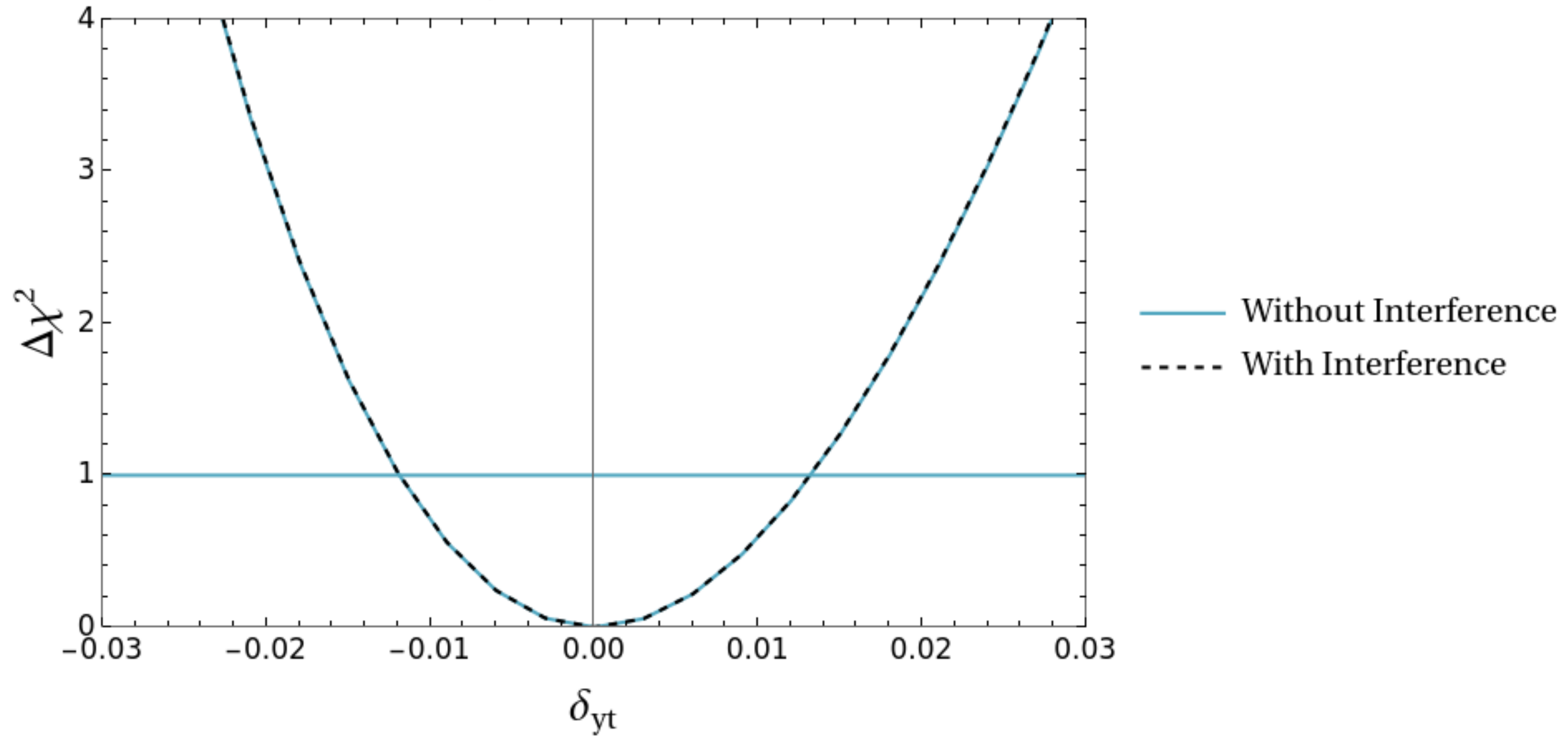
Adding Z-gamma Luminosity

$$\sqrt{s} = 3 \ TeV$$

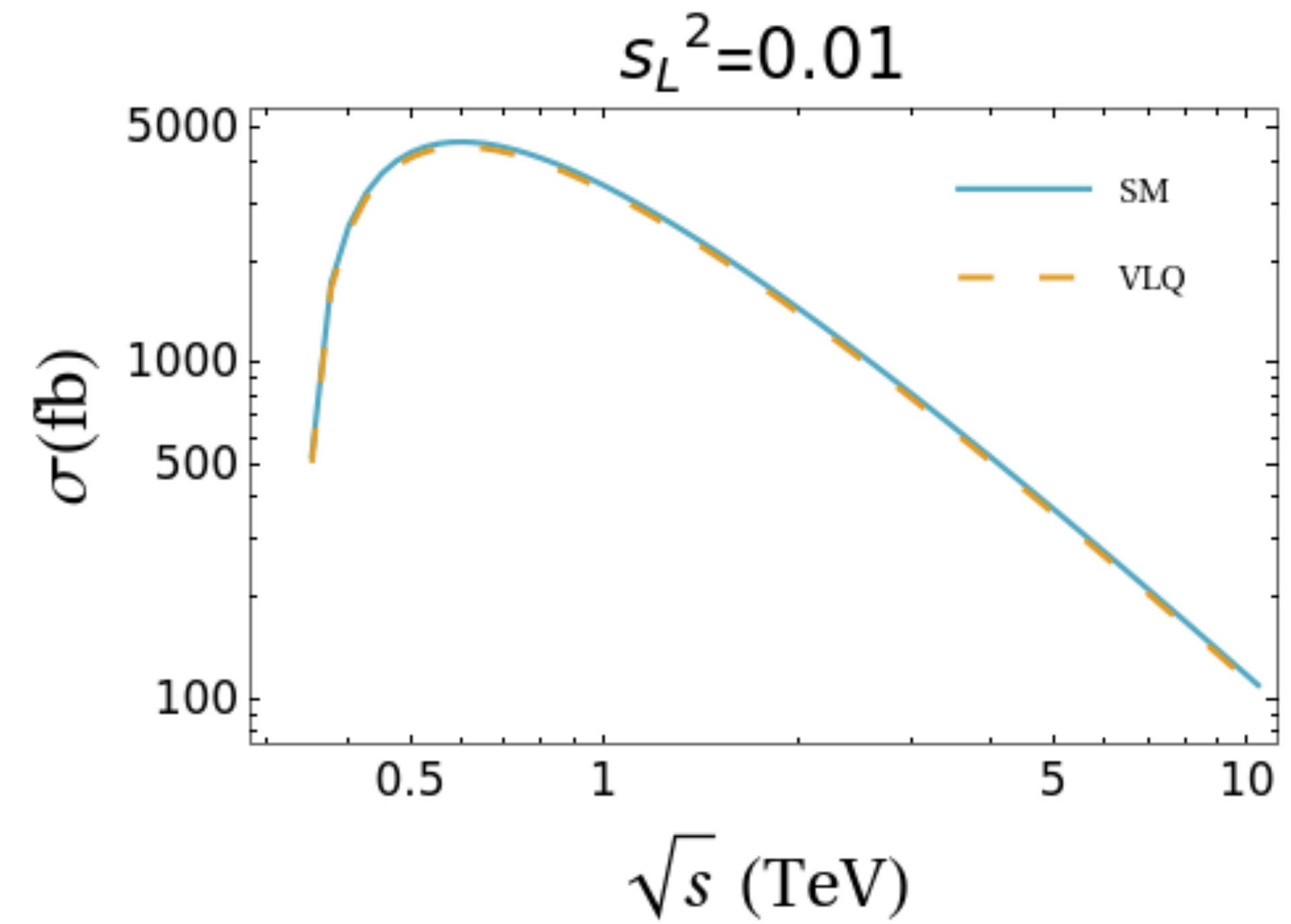**Chi-Square Results**

$\sqrt{s} = 10$ TeV

$\Delta\chi^2$ vs δ_{yt}

— Without Interference
- - - With Interference
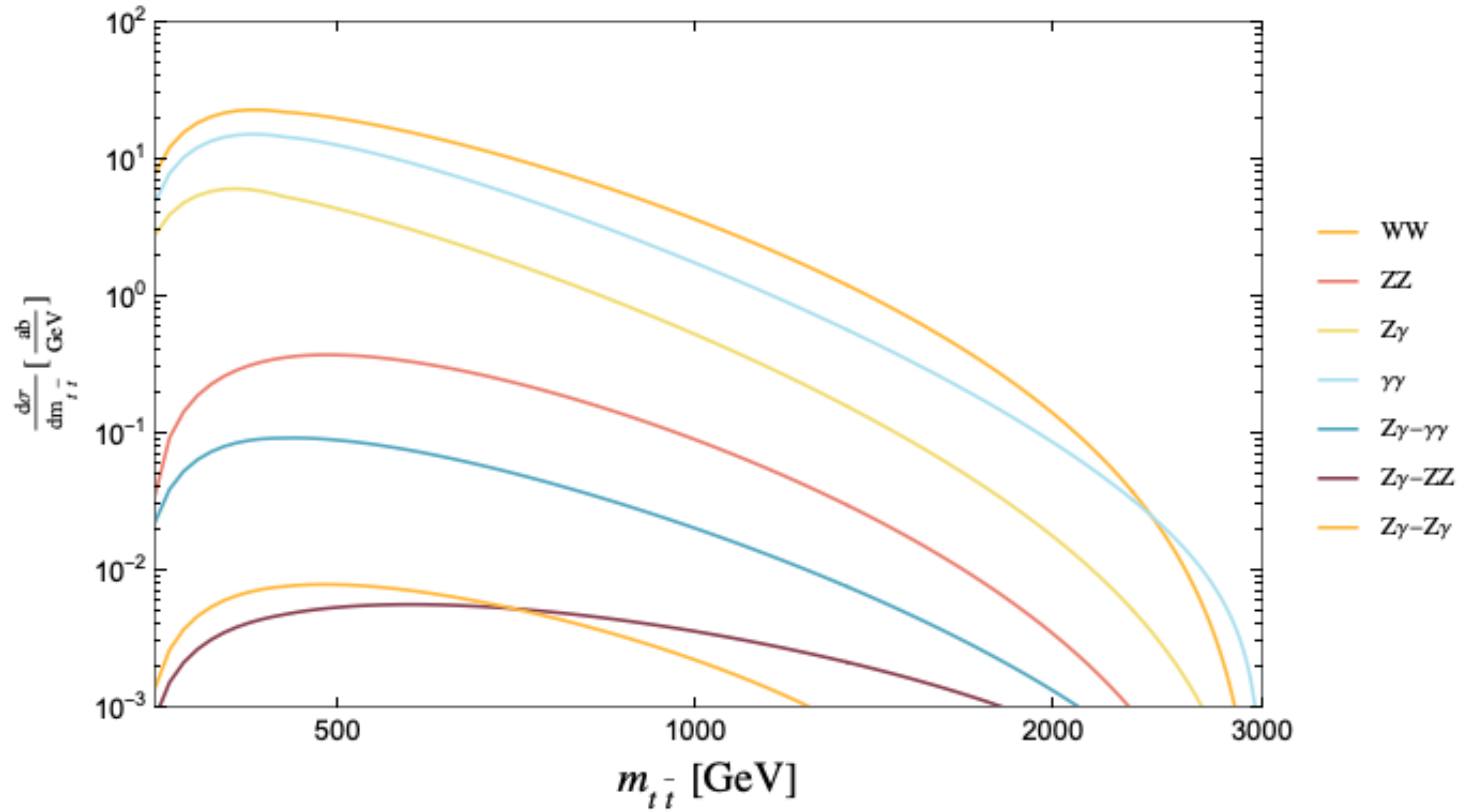
Analysis With VLQ Model

Partonic Distribution for a few selected polarization of WW

$s_L{}^2 = 0.01$

SM

VLQ

$\sigma(\text{fb})$

$\sqrt{s}$ (TeV)

$s_L{}^2 = 0.01$

SM

VLQ

$\sigma(\text{fb})$

$\sqrt{s}$ (TeV)

$s_L{}^2 = 0.01$

SM

VLQ

$\sigma(\text{fb})$

$\sqrt{s}$ (TeV)

$s_L{}^2=0.01$

$s_L{}^2=0.01$

Chi-Square Results

$s_L{}^2 = 0.01$
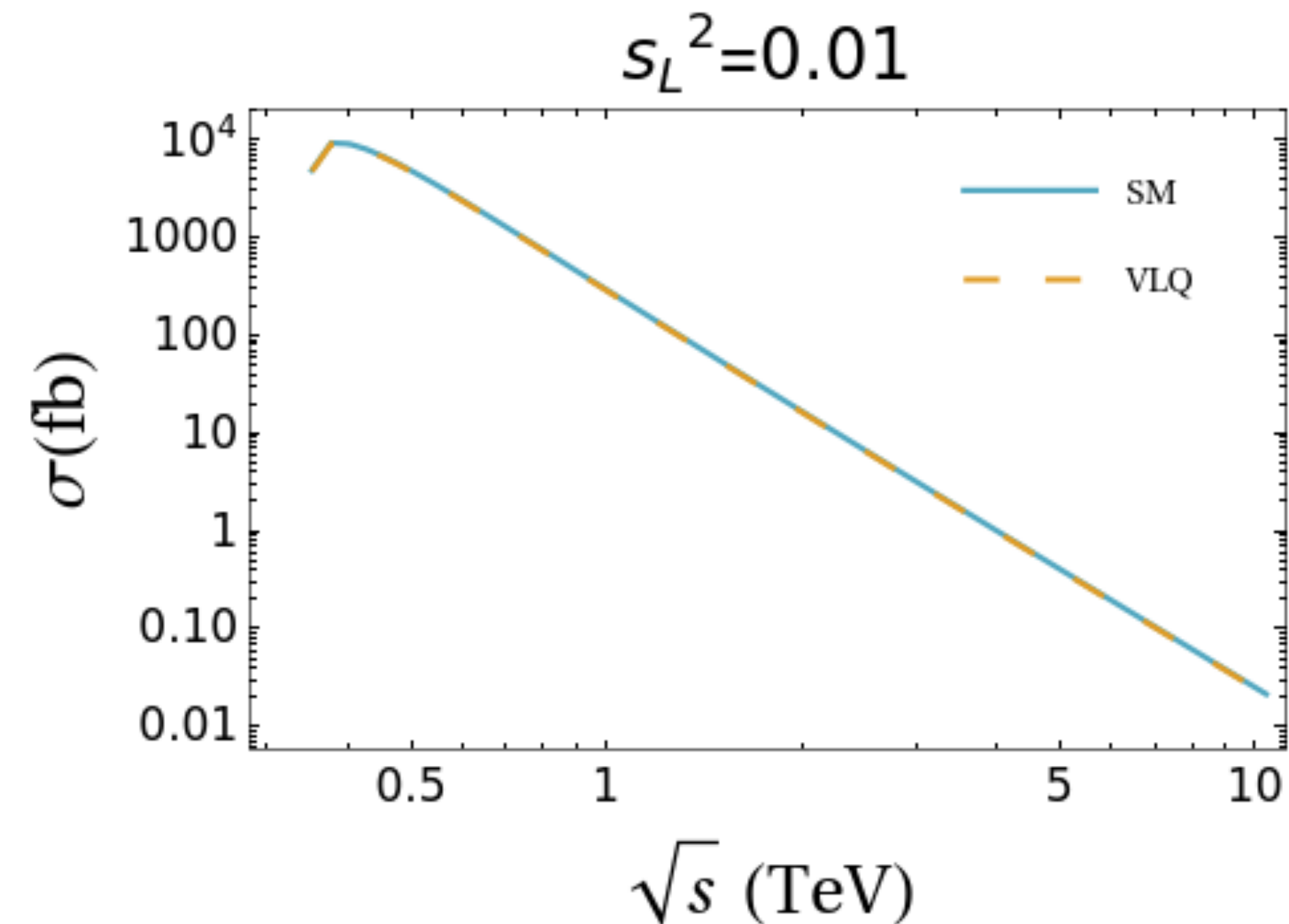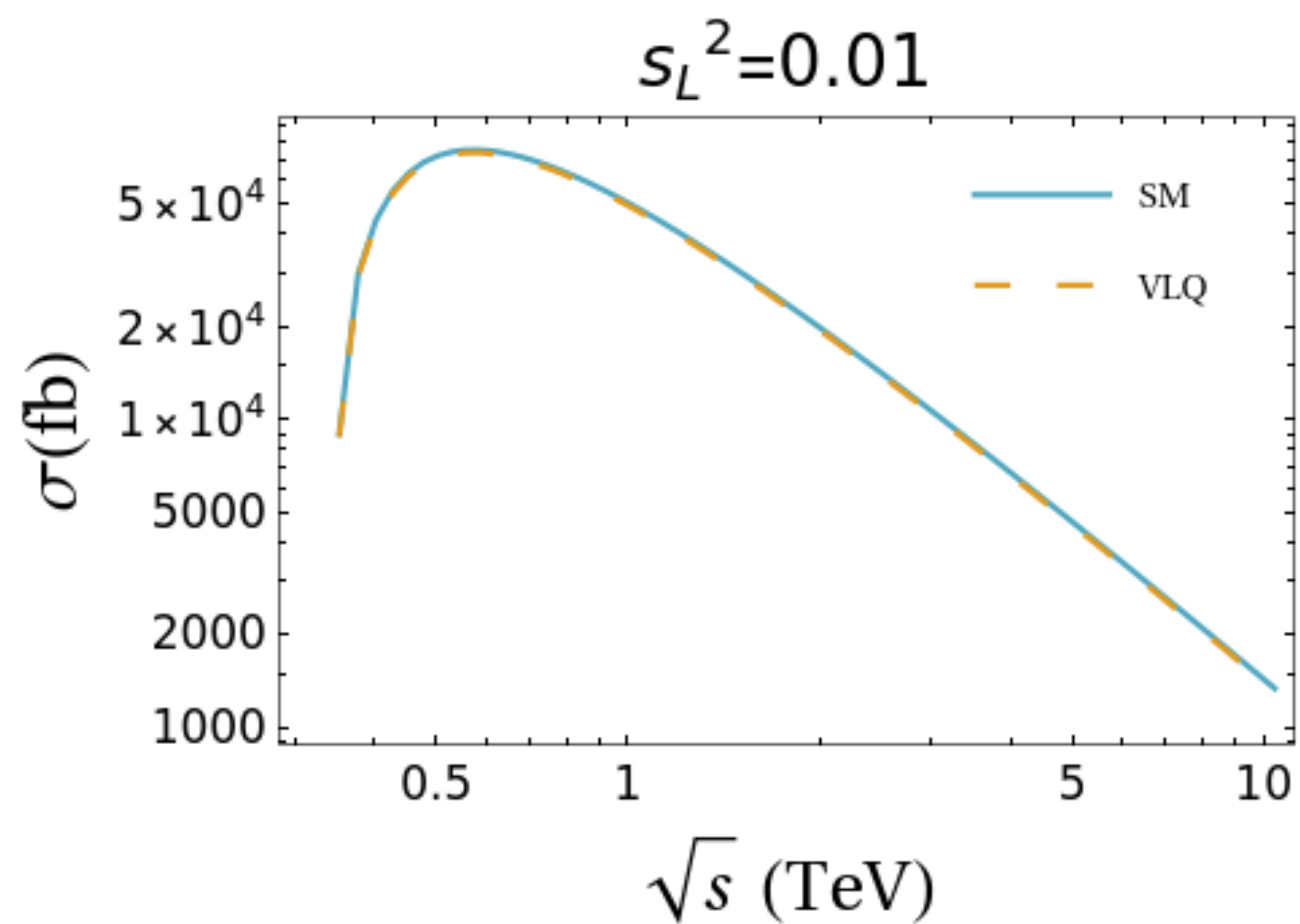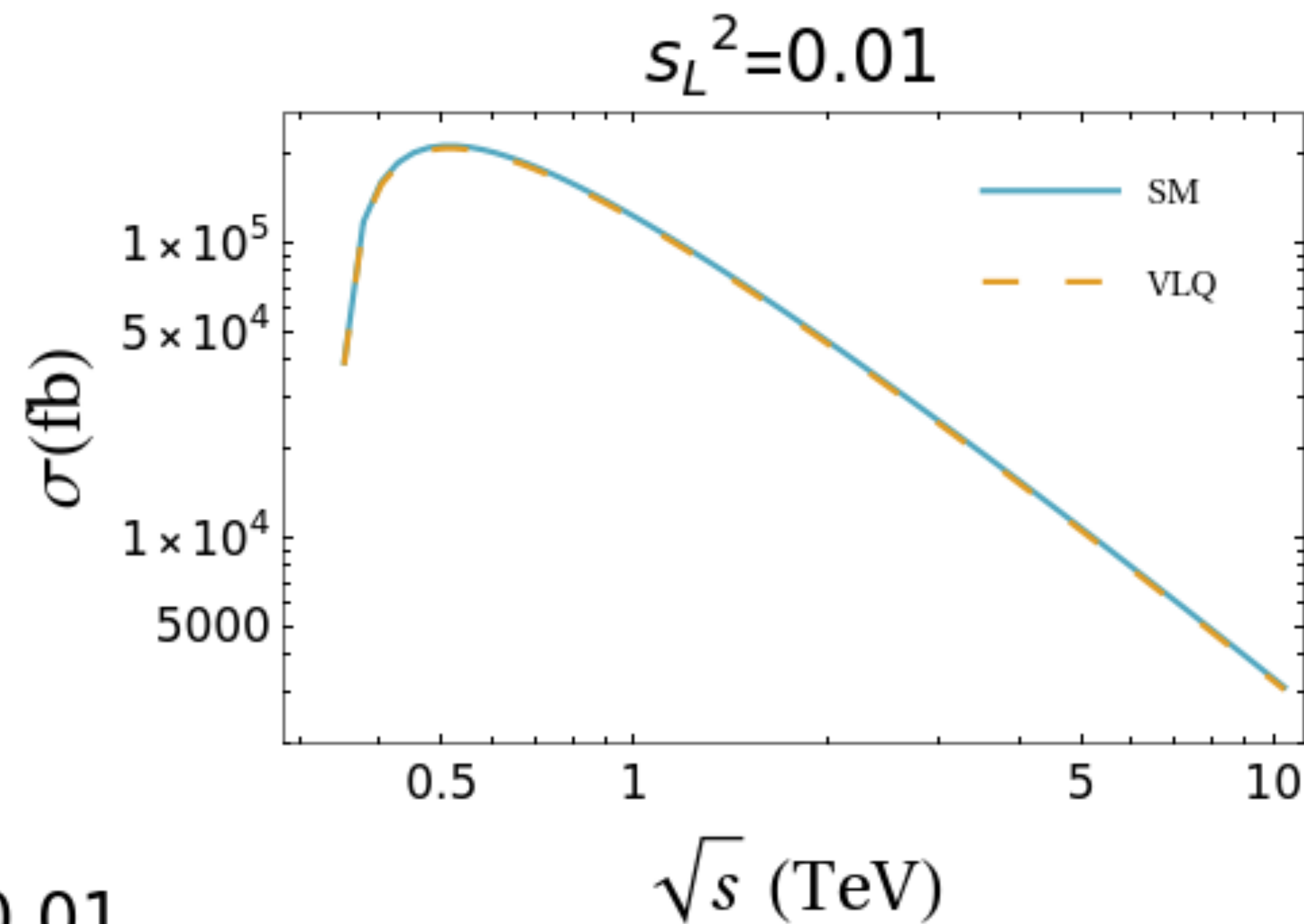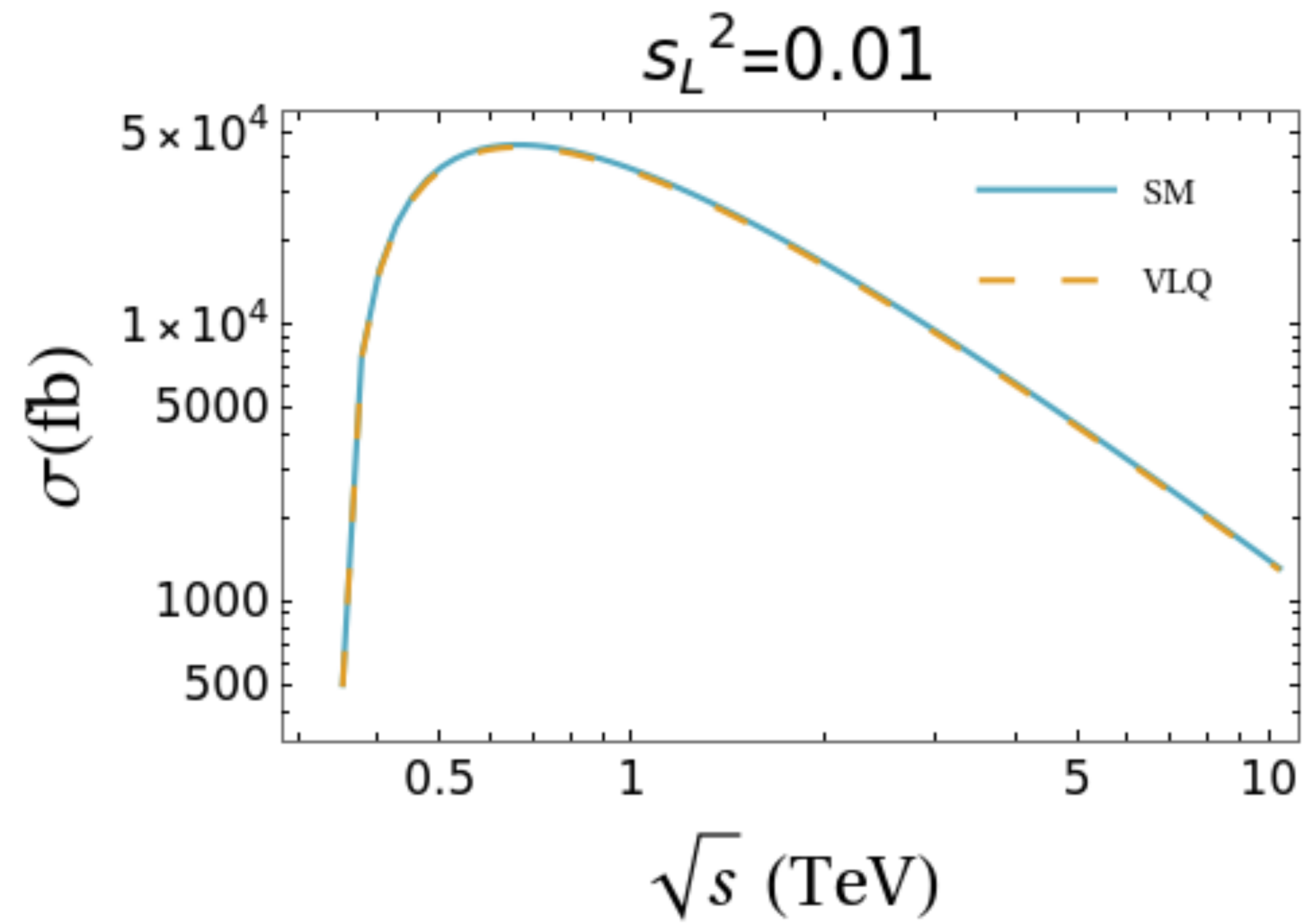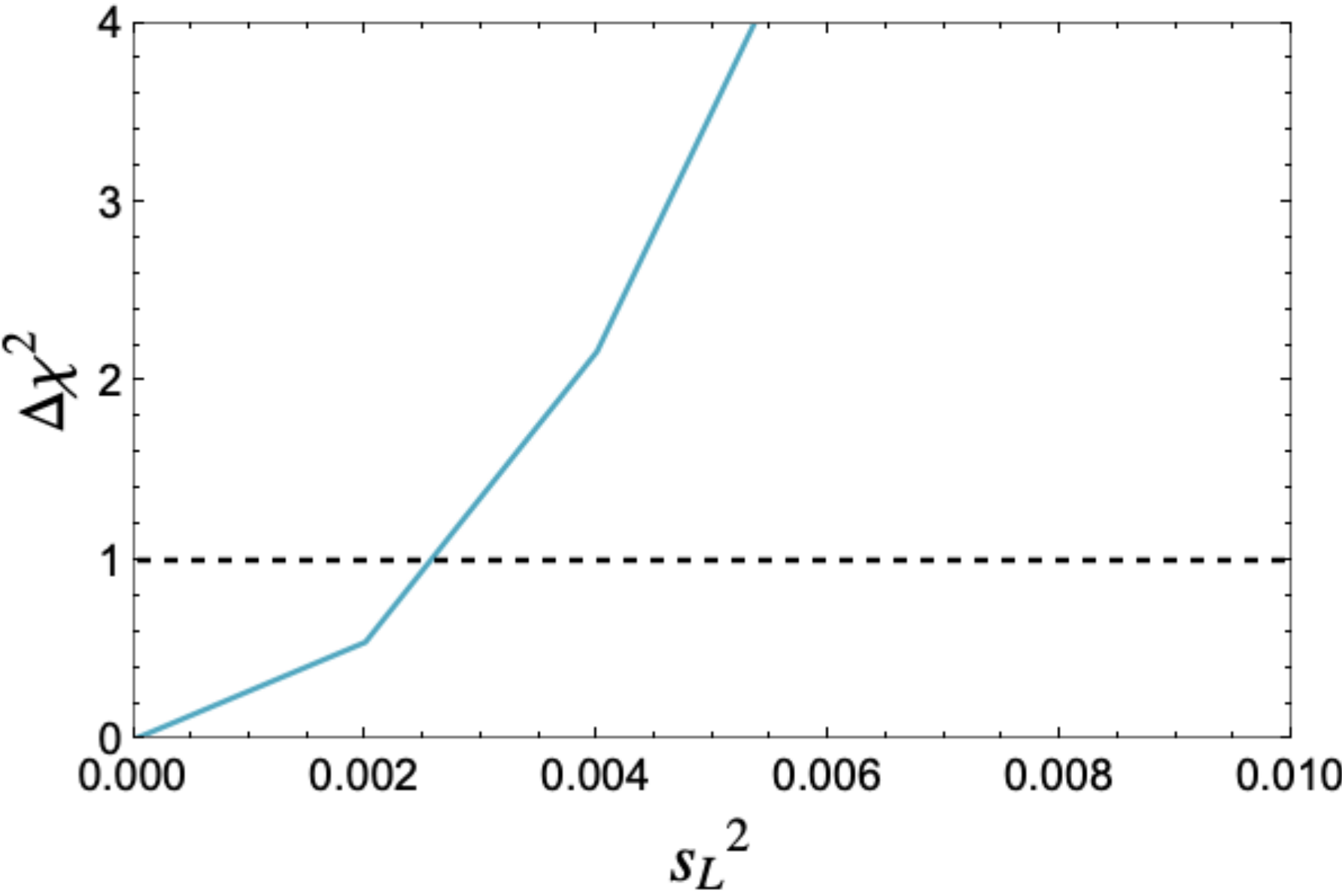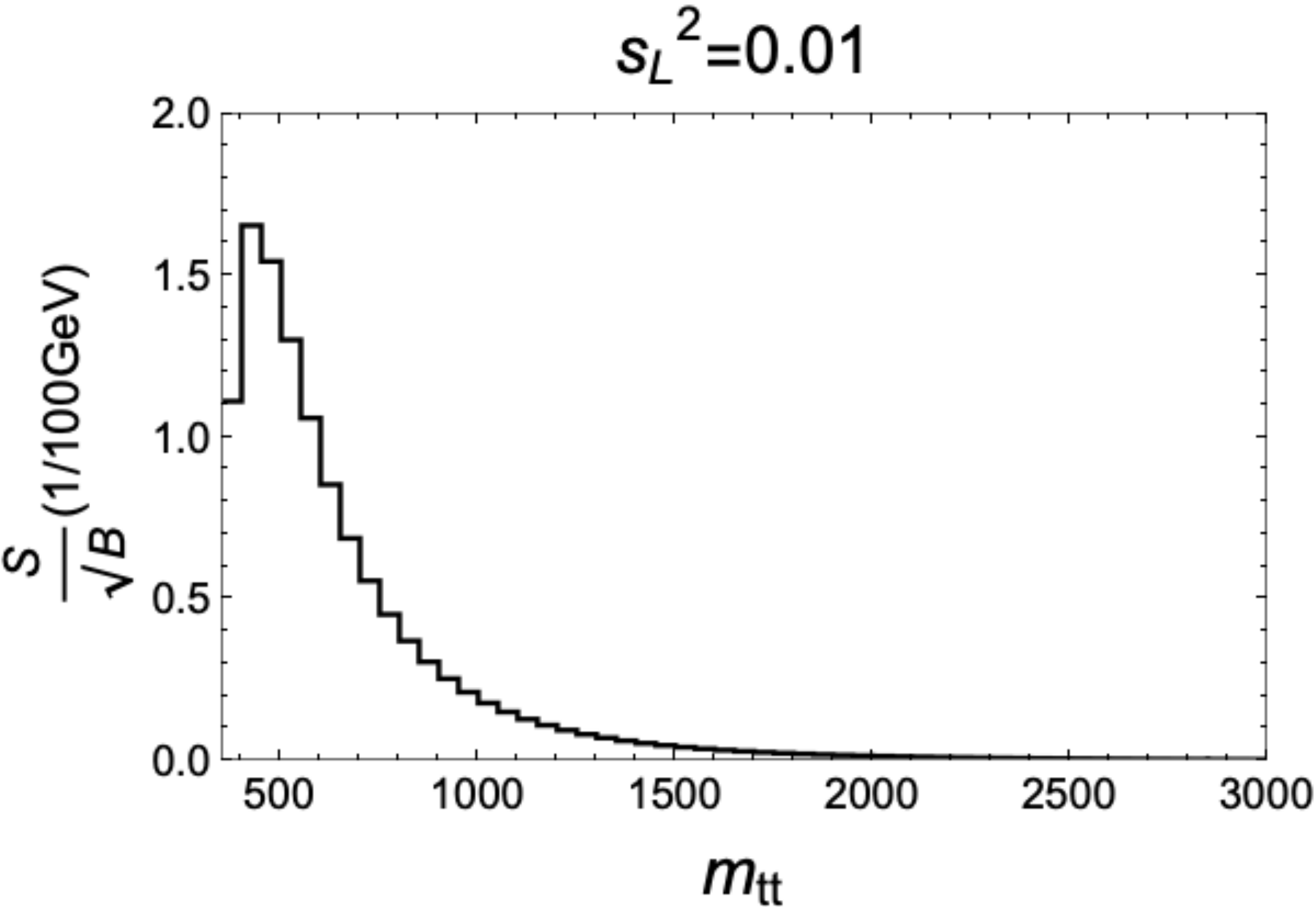
The parameter space for the VLQ model