

Sample characteristics

15000 τ events generated:

- $0 \leq \varphi \leq 2\pi$ rad
- $10^\circ \leq \theta \leq 170^\circ$
- $20 \leq p_T \leq 320$ GeV/c

7500 H $\rightarrow$ tautau

7500 Z $\rightarrow$ tautau

7500 MuMu $\rightarrow$ tautau

15000 Z $\rightarrow$ qqjets

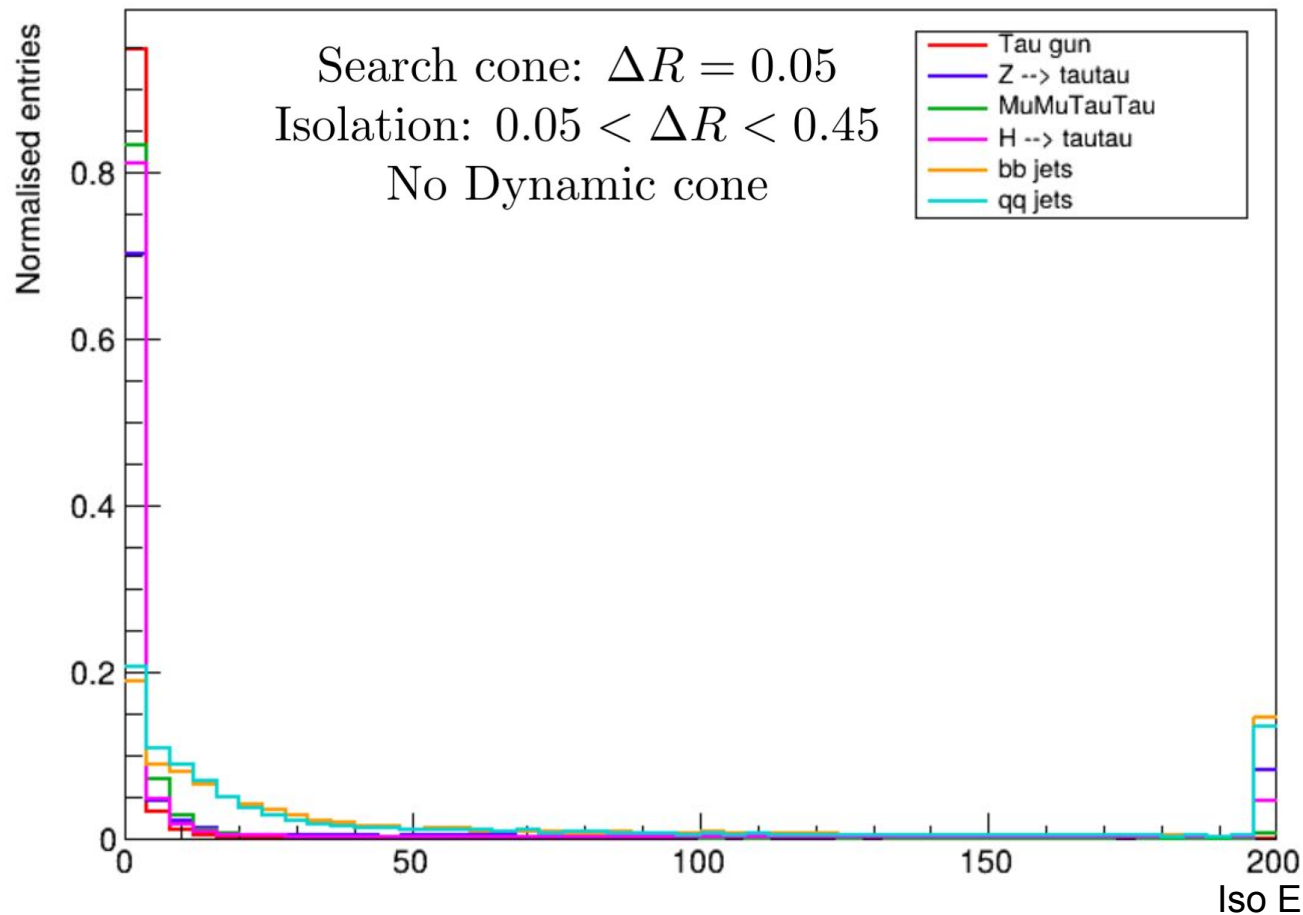
15000 Z $\rightarrow$ bbjets

Search cone: $\Delta R = 0.05$

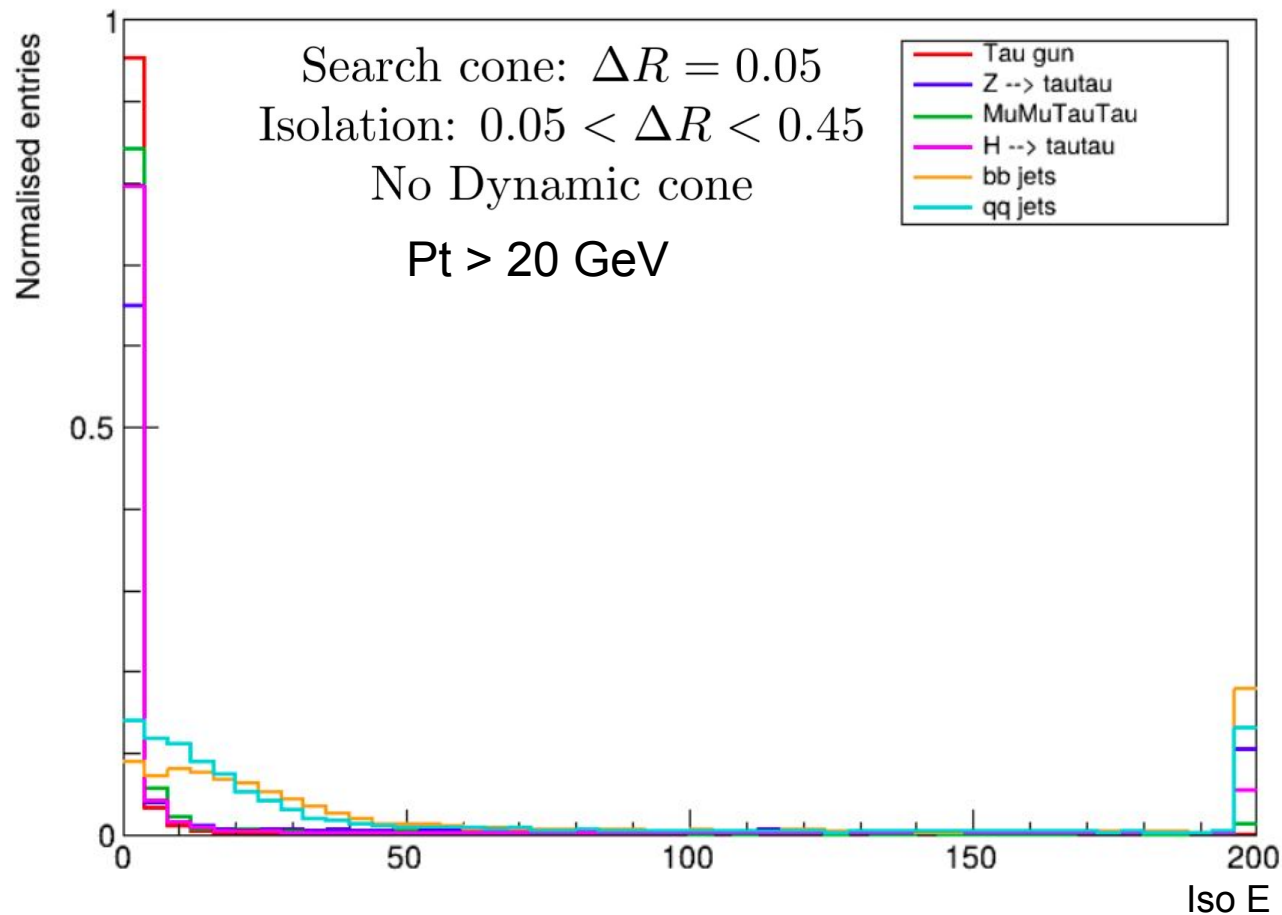
Isolation cone: $0.05 < \Delta R < 0.45$

No Dynamic cone

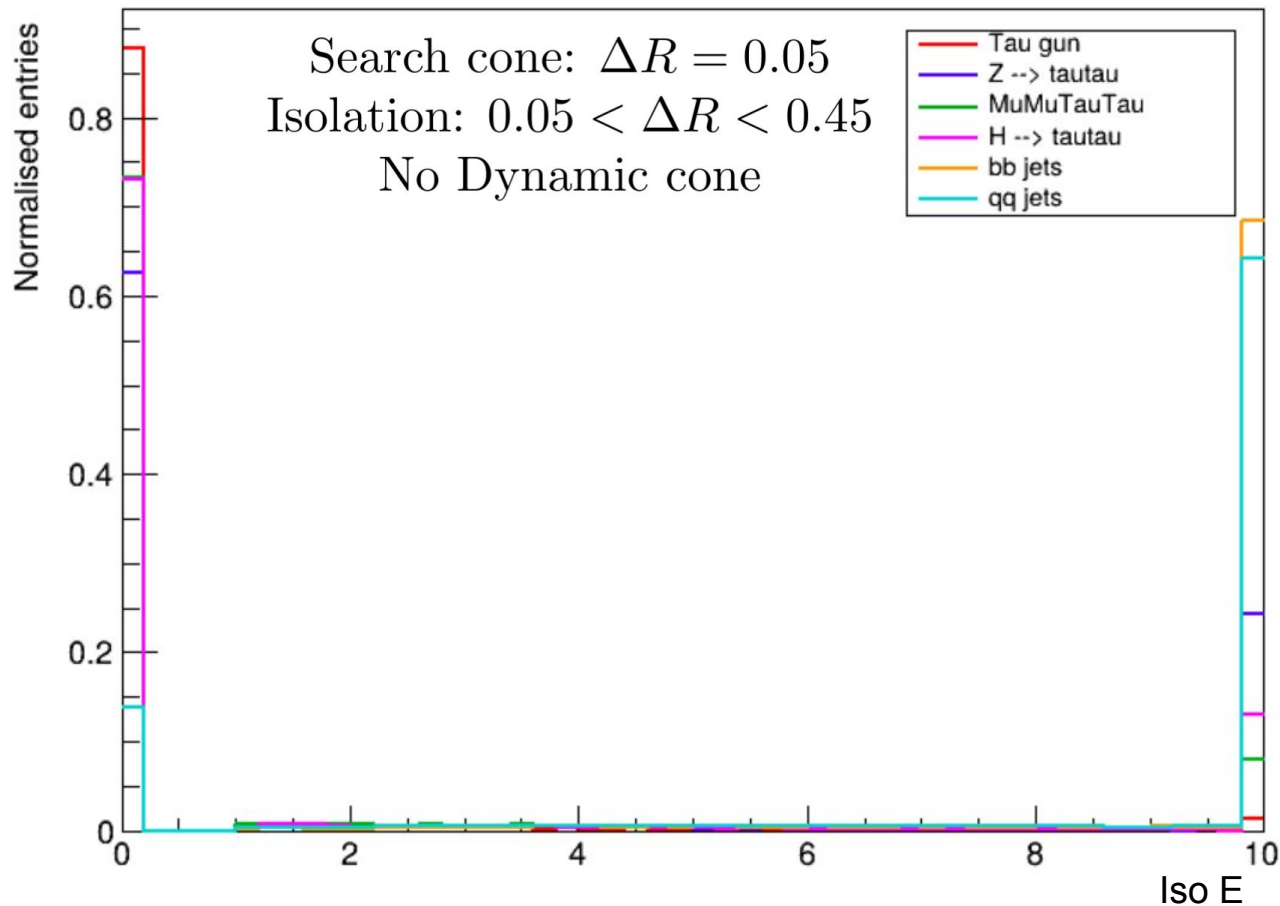
Isolation Energy for TauGun and samples



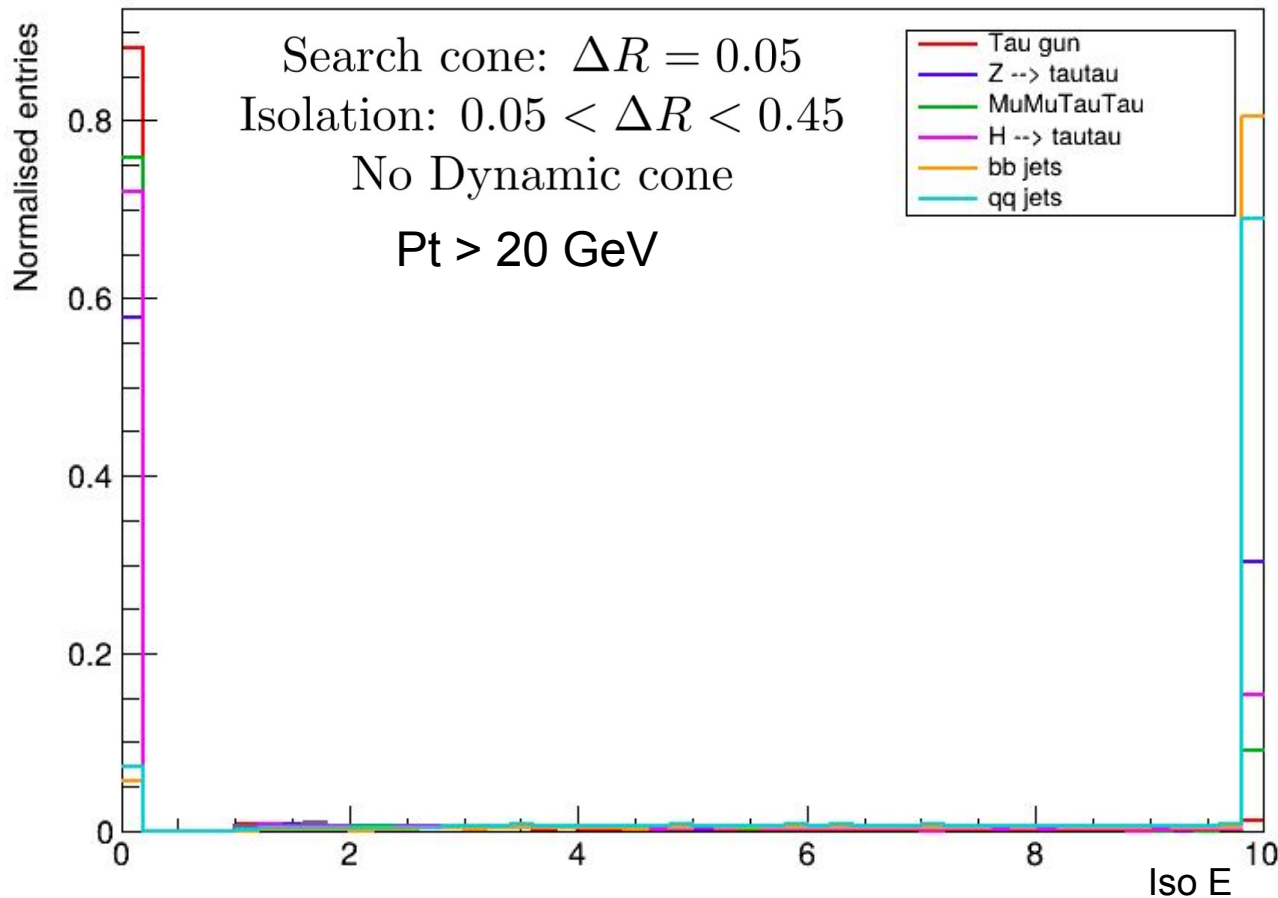
Isolation Energy for TauGun and samples Pt > 20 GeV



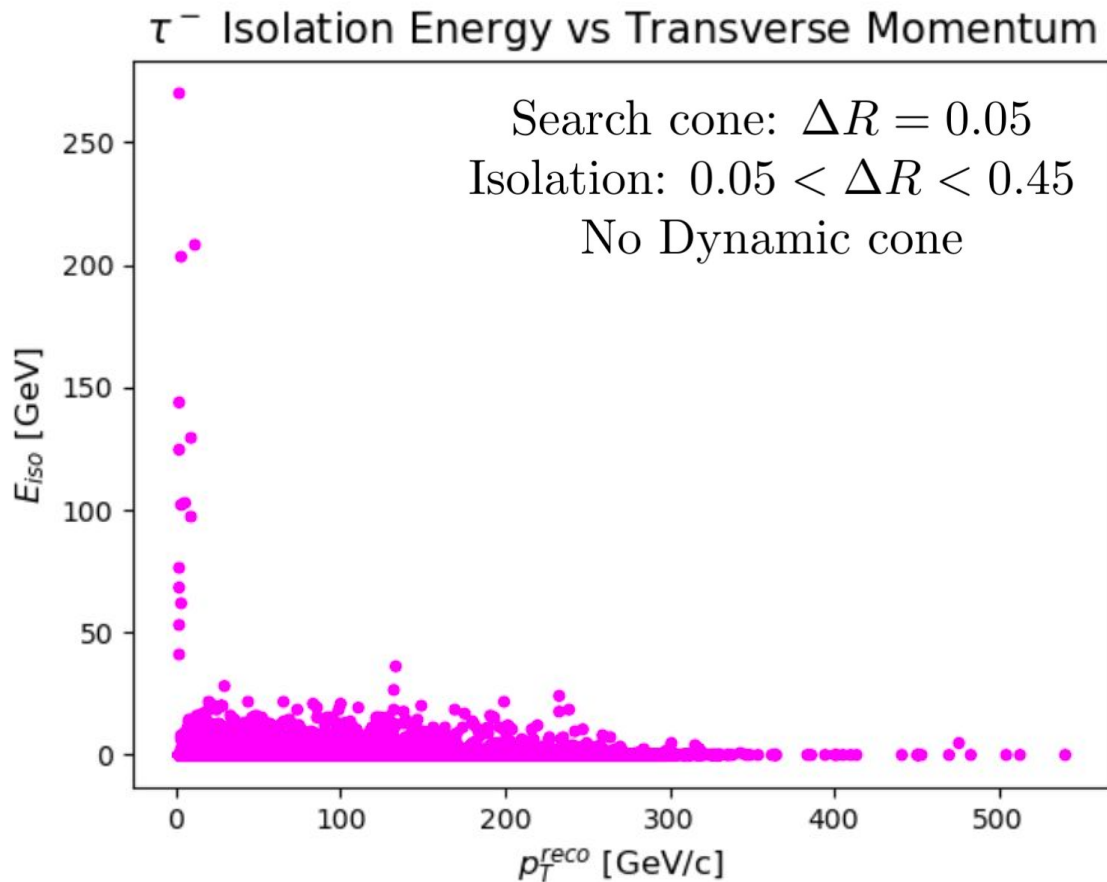
Isolation Energy for TauGun and samples (Zoom)



Isolation Energy for TauGun and samples Pt > 20 GeV (Zoom)

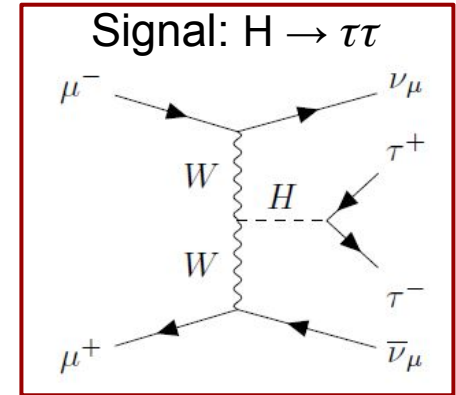
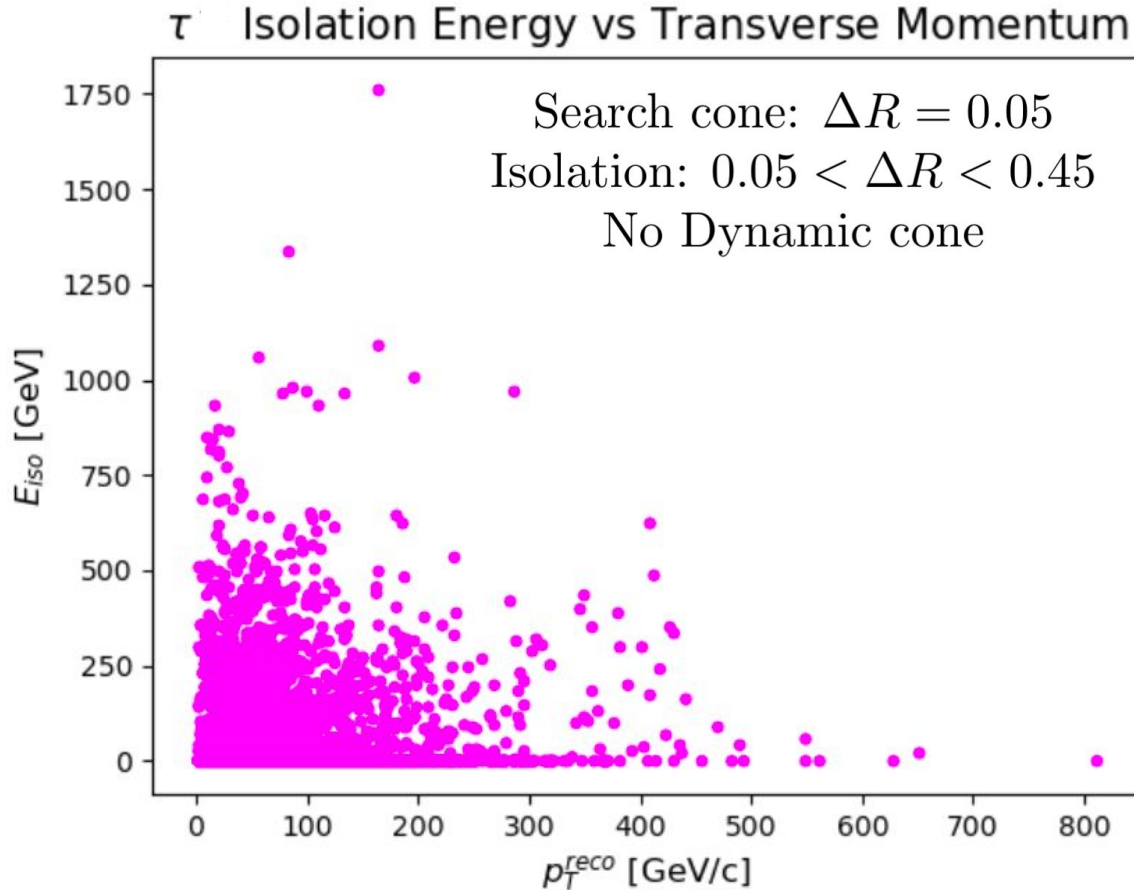


Reconstructed tau Isolation energy vs Tau Pt

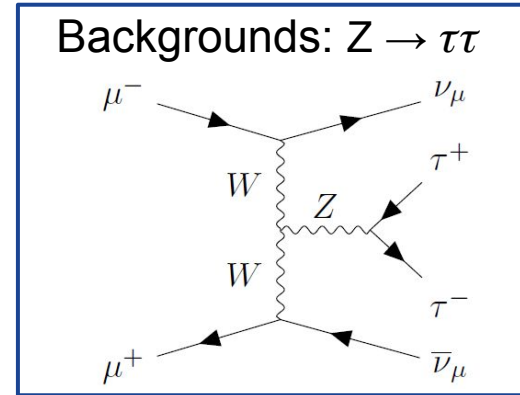
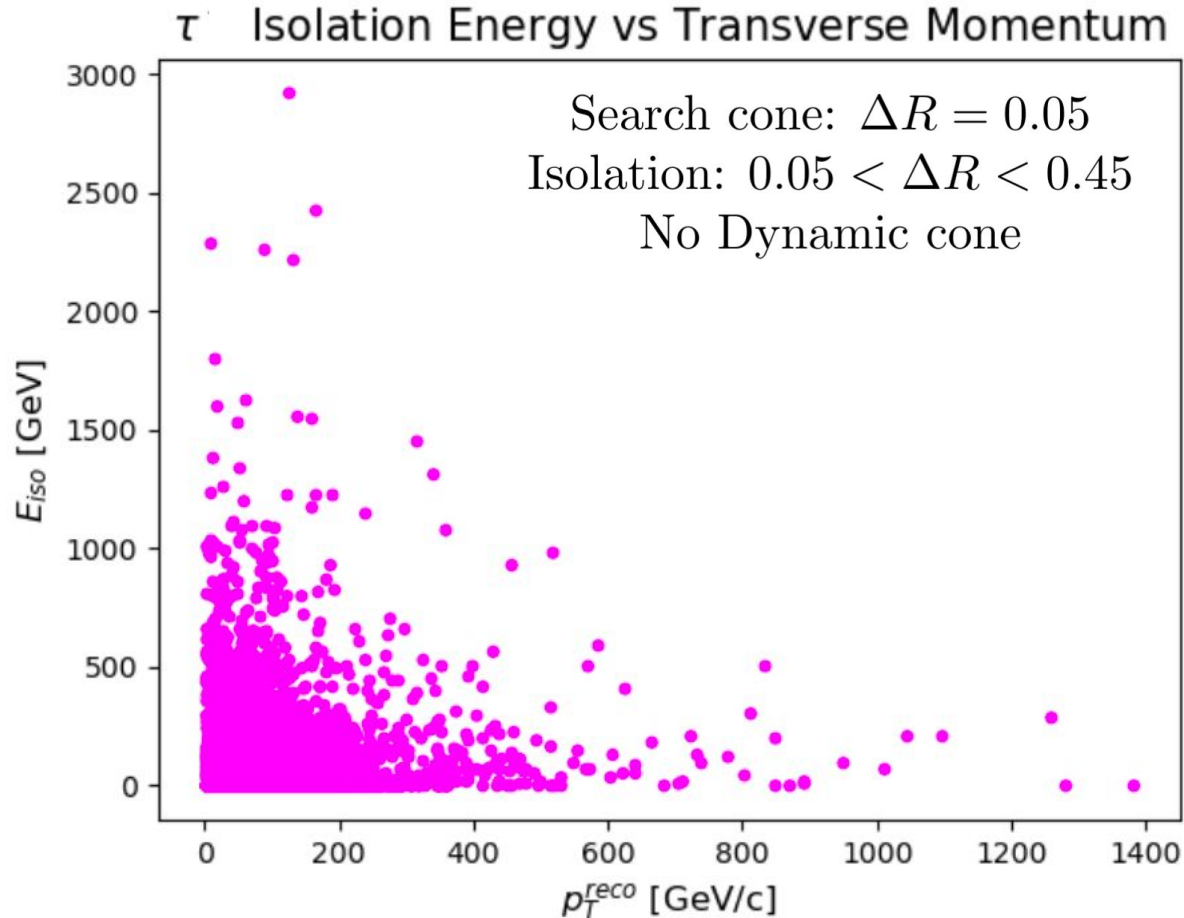


Tau gun

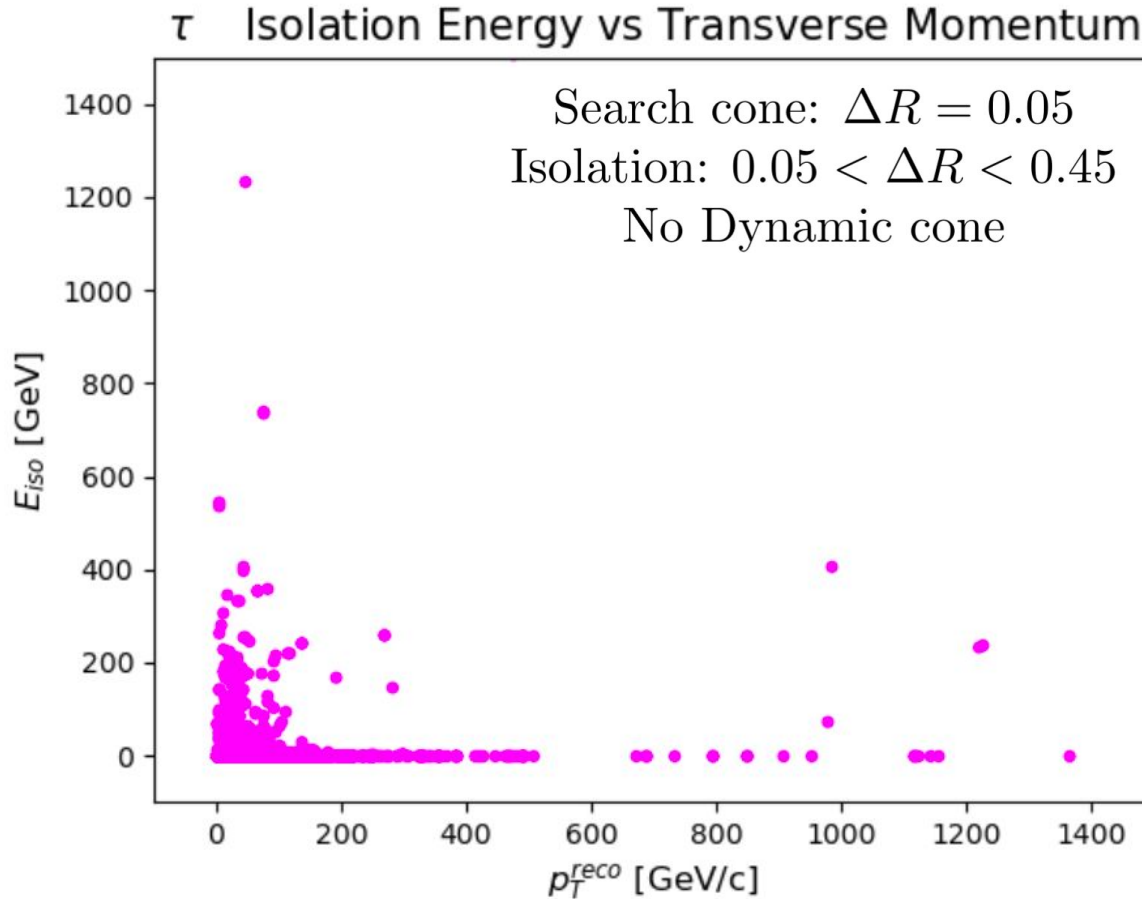
Reconstructed tau Isolation energy vs Tau Pt



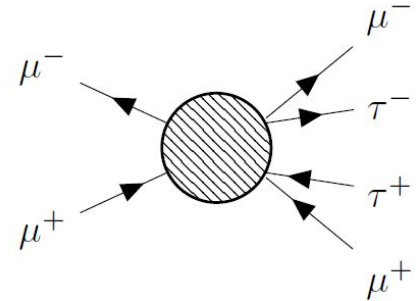
Reconstructed tau Isolation energy vs Tau Pt



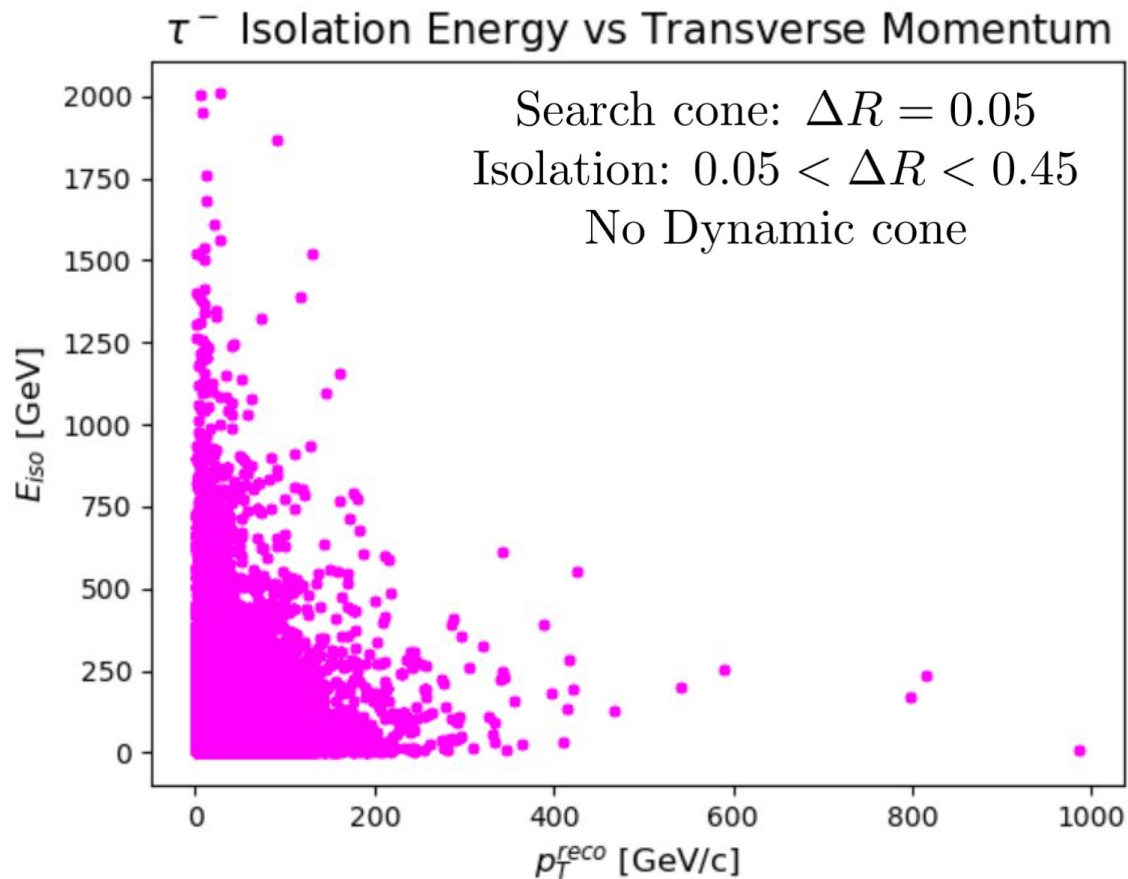
Reconstructed tau Isolation energy vs Tau Pt



Backgrounds: $\mu\mu \rightarrow \tau\tau\mu\mu$

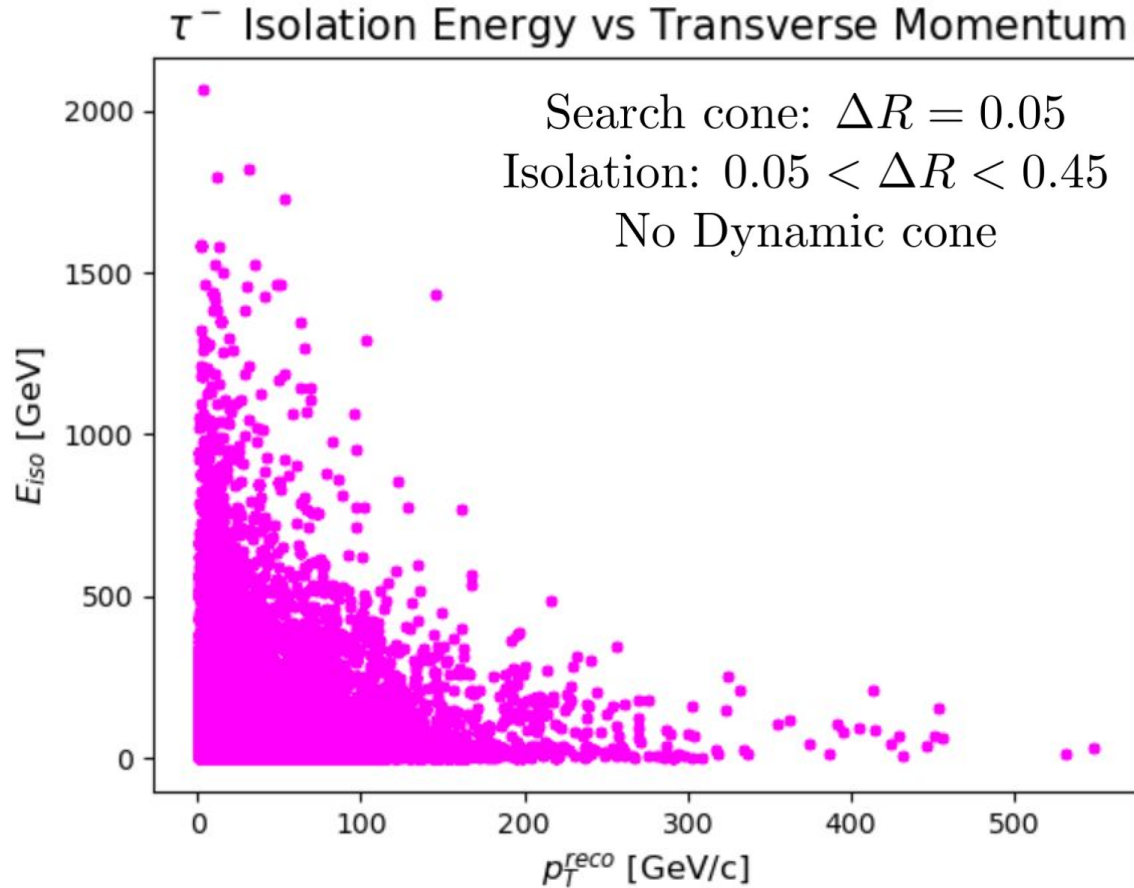


Reconstructed tau Isolation energy vs Tau Pt



$Z \rightarrow b\bar{b}$ jets

Reconstructed tau Isolation energy vs Tau Pt



$Z \rightarrow qq$ jets