



- $e^+e^- \rightarrow \mu^+\mu^-Z', Z' \rightarrow \tau^+\tau^-, \tau^\pm \rightarrow l^\pm \nu_l \nu_\tau$
- $e^+e^- \rightarrow \mu^+\mu^-$
- ▲—  $e^+e^- \rightarrow \tau^+\tau^-$
- ▼—  $e^+e^- \rightarrow \mu^+\mu^-\tau^+\tau^-$
- $e^+e^- \rightarrow \mu^+\mu^-\mu^+\mu^-$
- $e^+e^- \rightarrow e^+e^-e^+e^-$
- △—  $e^+e^- \rightarrow e^+e^-\mu^+\mu^-$
- ◇—  $e^+e^- \rightarrow e^+e^-\tau^+\tau^-$

#0, no cuts

+ #1, 2 tracks &  $\sum Q=0$

+ #2, CL<sub>vtx</sub>

+ #3, Energy conservation

+ #4, E<sub>sum</sub>

+ #5, p<sub>t</sub>

+ #6, Open angle between tracks + mass conservation

+ #7, Recoiling muon pair polar angle

+ #8,  $\cos(\phi_{FS} - \phi_\gamma)$

+ #9,  $\theta_{\text{missing } Z'}$