PRECISION THRESHOLD STUDIES TOP QUARK:*

- The $t\bar{t}$ threshold SHAPE determines m_t and , $_t$

- Even a conservative natural beam resolution $R \approx 0.1\,\%$ will increase precision compared with other machines (e^+e^- collider $\rightarrow R \approx 1\,\%$) Initial state radiation (ISR) is reduced

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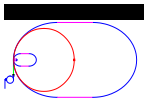
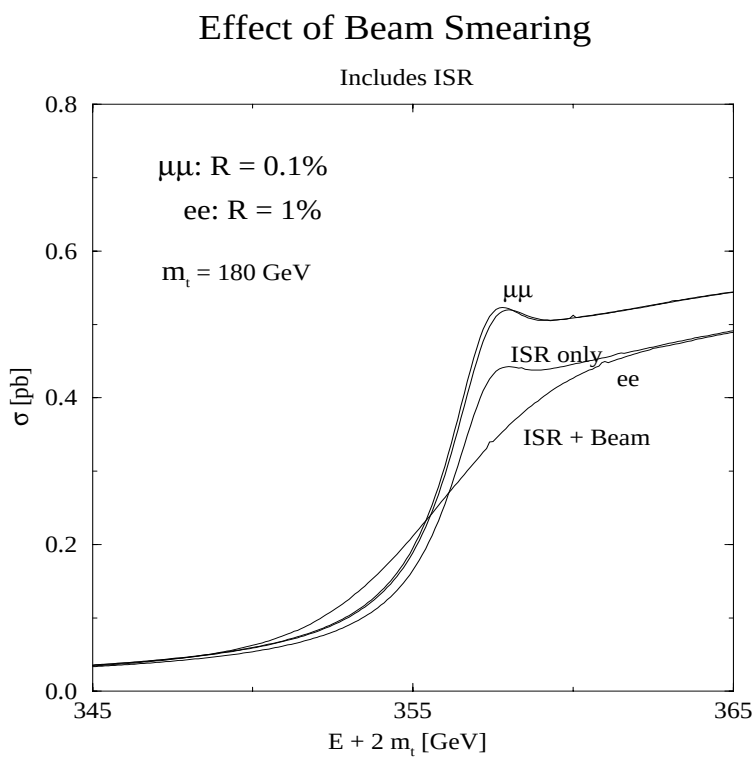


$\mu^+\mu^-$ COLLIDER



The threshold curves are shown for $\mu^+\mu^-$ and e^+e^- machines including ISR and with and without beam smearing. Beam smearing has only a small effect at a muon collider, whereas at an electron collider the threshold region is significantly smeared. The strong coupling is taken to be $\alpha_s(m_Z) = 0.12$.

- Both measurements of mh, , $_t$ and results for top quark will allow consistency tests of EWSB theory