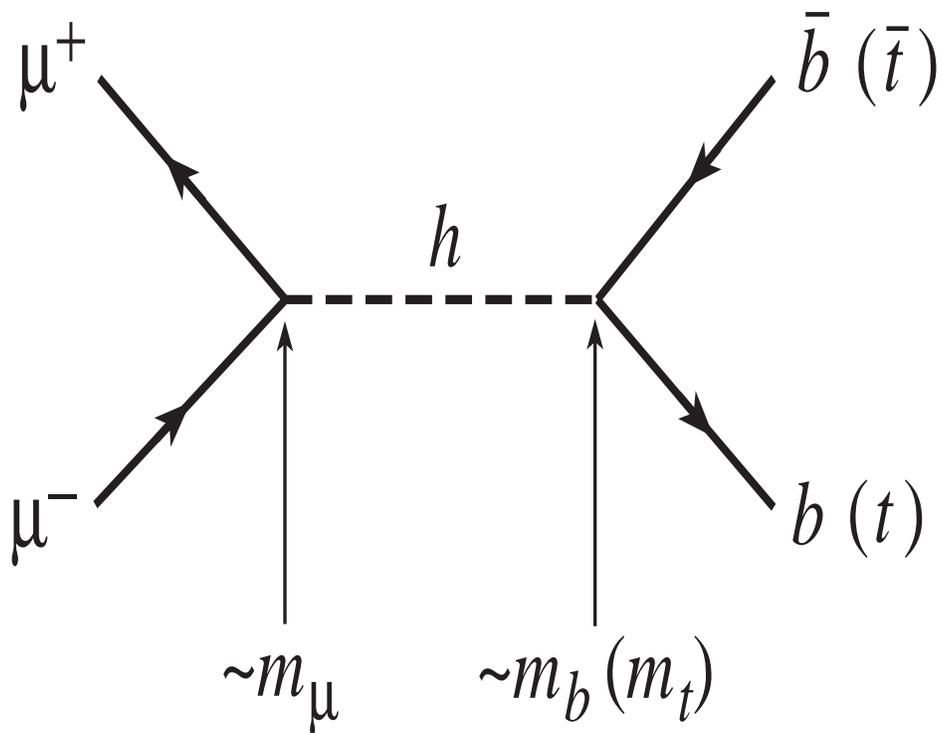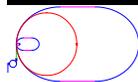# s-CHANNEL HIGGS
PHYSICS:*

Standard Model (SM)→ one Higgs boson (h)

Minimal Super Symmetric Model (MSSM)→
5 Higgs bosons (h^o, H^o, A^o, $H^\pm$)

μ^+ $\qquad$ $\bar{b}\,(\bar{t})$

h

μ^- $\qquad$ $b\,(t)$

$\sim m_\mu$ $\qquad$ $\sim m_b\,(m_t)$

*

$\mu^+\mu^-$ COLLIDER

- Energy of machine has to be adjusted to mh

- Energy spread of machine R. The $\sqrt{s}$ rms Gaussian spread $\sigma_{\sqrt{s}}$(natural spread) has to be smaller or order of , h
  to be sensitive to , $h_{SM} \to R \approx 0.01\,\%$

- Requirements:

  1. Luminosity $\mathcal{L} > 10^{33}\,[cm^{-2}s^{-1}]$ at $\sqrt{s} \approx m_h$

  2. Excellent energy resolution $R \approx 0.01\,\%$

  3. Ability to adjust machine energy accurately and quickly over an interval of several GeV