

Possible topics for future joint exp./th. studies

$t\bar{t}$: top mass

$m_t^{\overline{\text{MS}}}$ from $\sigma_{t\bar{t}}$: dependence of acceptance cuts on m_t

Kinematical methods, e.g.. m_t from $M_{\ell b}$ invariant mass distribution (NLO study by Melnikov et al.) – so far exp. unexploited ?

$t\bar{t}$: distributions

top charge asymmetries for dilepton & ℓ + jets final states as functions of rapidity cuts – very small in SM

spin correlations for ℓ + jets final states

shape uncertainty of $\ell\ell$ azimuthal angle correl. due to $\delta M_{t\bar{t}}^{exp}$

$t\bar{t}\gamma$: distributions

Predictions of $R_\gamma = \sigma(t\bar{t}\gamma)/\sigma(t\bar{t})$ for $\ell\ell, \ell + j$ final states (top charge, sensitivity to anom. couplings) – detailed study of appropriate cuts

single top:

top polarization

extraction of anomalous top couplings from single top and $t\bar{t}$ production and decay

resonance studies in $t\bar{t}$ and single top production