QCD (No MPI, No Detector effects) QCD (No MPI, With detector (using DELPHES) effects)  $t\bar{t}$  (No MPI, No Detector effects)  $t\bar{t}$  (No MPI, With detector (using DELPHES) effects)  $W^{\pm}Z, W^{\pm} \rightarrow 2j, Z \rightarrow 2\nu$  (No MPI, No Detector effects)  $Z\phi, Z \to 2\nu, \phi \to W^+W^- \to 4j$  (No MPI, No Detector effects)