

## Abstract

In the hadronic part of semi-electronic  $t\bar{t}$  decay channel,  $t \rightarrow Wb \rightarrow jjb$ , both W boson and top quark masses are constrained to agree with their measured values. An event-by-event Kinematic Fit using Lagrange multipliers is used to enforce the constraints. Residual corrections on the energy scale of both light jets from W boson decay and b jet from top quark decay are estimated by minimizing a  $\chi^2$  distribution coming out of the fitting procedure.