$p_T > 2$ GeV and also underestimates the high p_T quenching of pions.

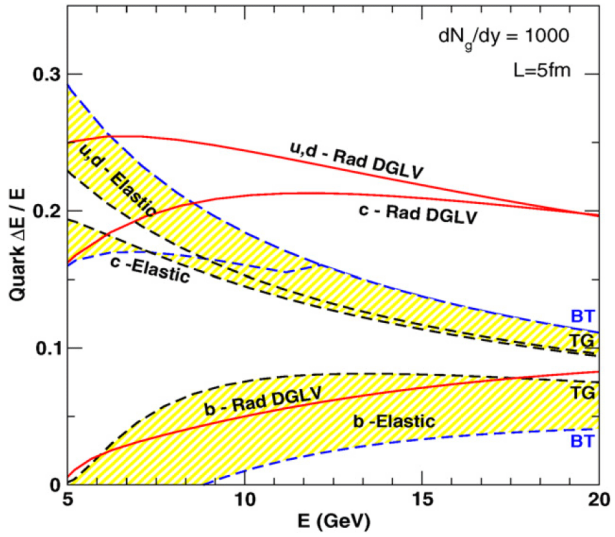

Figure 4.2: *$\Delta E/E$ for u, c, b quarks as a function of E. A Bjorken expanding QGP with path length $L = 5$ fm and initial density fixed by $dN_g/dy = 1000$ is assumed. The curves are computed with the coupling $\alpha_S = 0.3$ held fixed. For Debye mass $\mu_D \propto (dN_g/dy)^{(1/3)}$, the gluon mass is $\mu_D/\sqrt{2}$, the light quark mass is $\mu_D/2$, the charm mass is 1.2 GeV, and the bottom mass is 4.75 GeV. Radiative DGLV first order energy loss is compared to elastic parton energy loss (in TG or BT approximations). The yellow bands provide an indication of current theoretical uncertainties in the elastic energy loss for bottom quarks.*

In contrast, Mustafa found that radiative and elastic energy losses for heavy quarks were in fact comparable over a very wide kinematic range accessible at RHIC. In Fig. 4.2, we confirm Mustafa's finding [236, 382] and extend it to the light quark sector as well; the fractional energy loss, $\Delta E/E$, from DGLV radiative for u, c, b quarks (solid curves) is compared to Thoma-Gyulassy (TG)