

$$\frac{\hat{q}}{T^3} = 42C_R \frac{\zeta(3)}{\pi} \left(\frac{4\pi}{9}\right)^2 \left\{ \underbrace{\frac{\textcolor{red}{A} \left[ \ln\left(\frac{E}{\Lambda}\right) - \ln(\textcolor{red}{B}) \right]}{\left[ \ln\left(\frac{E}{\Lambda}\right) \right]^2}}_{\text{Pure dependence on the scale of jet when } Q \gg T} + \underbrace{\frac{\textcolor{red}{C} \left[ \ln\left(\frac{E}{T}\right) - \ln(\textcolor{red}{D}) \right]}{\left[ \ln\left(\frac{ET}{\Lambda^2}\right) \right]^2}}_{\text{Perturbative scattering with quasi-particles from a thermal medium (T)}} \right\}$$

Pure dependence on the  
scale of jet when  $Q \gg T$

Perturbative scattering  
with quasi-particles from  
a thermal medium ( $T$ )