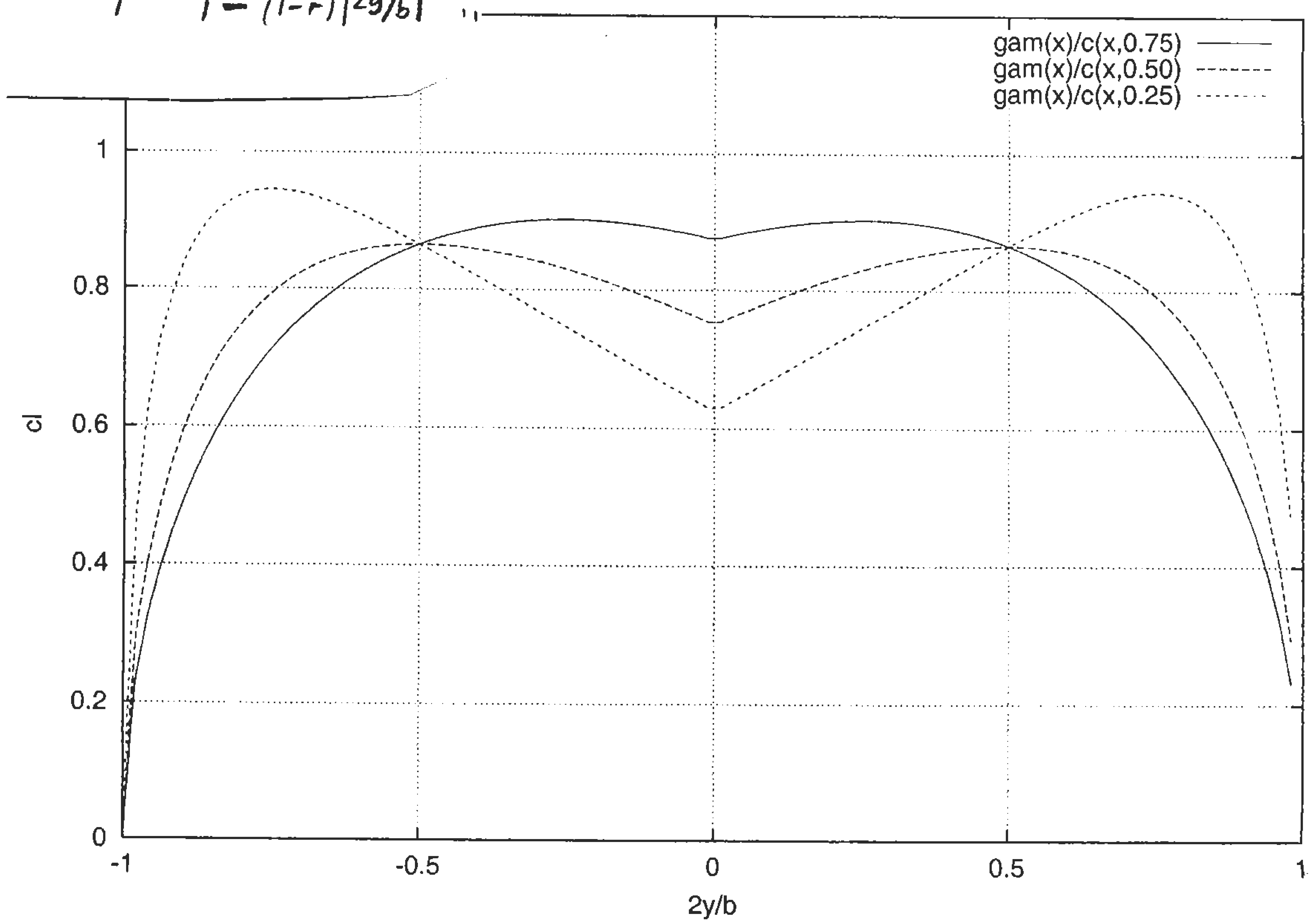
a) Linear taper from c_r to c_t : $c(y) = c_r + (c_t - c_r)\left|\frac{2y}{b}\right|$

or $c(y) = \frac{2}{1+r}\, c_{avg}\left[1 - (1-r)\left|\frac{2y}{b}\right|\right]$

b) $\Gamma(y) = \frac{1}{2} V c(y)\, c_\ell(y) \Rightarrow c_\ell(y) = \frac{2\Gamma(y)}{V_\infty c(y)} = \frac{2\Gamma_0}{V_\infty c_{avg}} \frac{1+r}{2} \frac{\sqrt{1-(2y/b)^2}}{1-(1-r)|2y/b|}$

Plots of $\frac{\sqrt{1-(2y/b)^2}}{1-(1-r)|2y/b|}$



The middle r = 0.50 case has the smallest $(c_\ell)_{max}/C_L$, so it has the largest stall margin