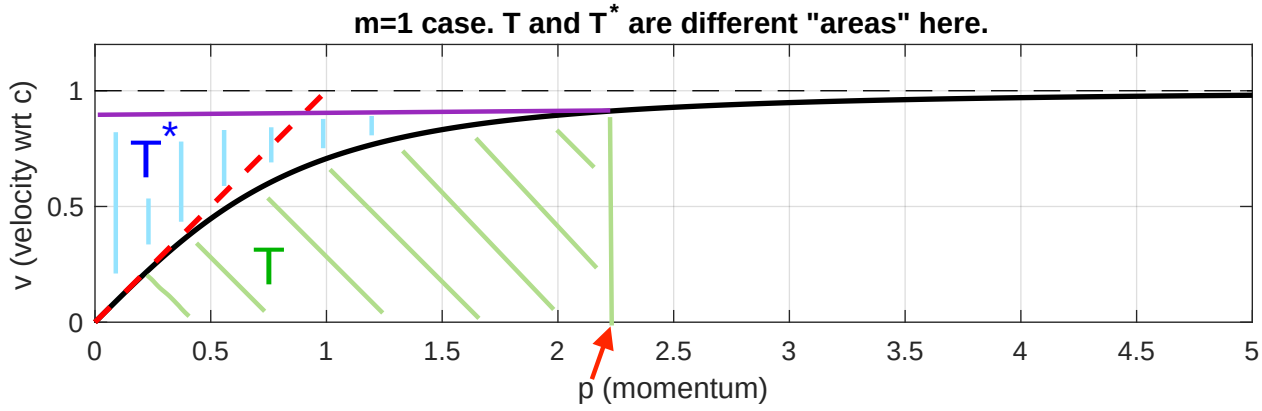
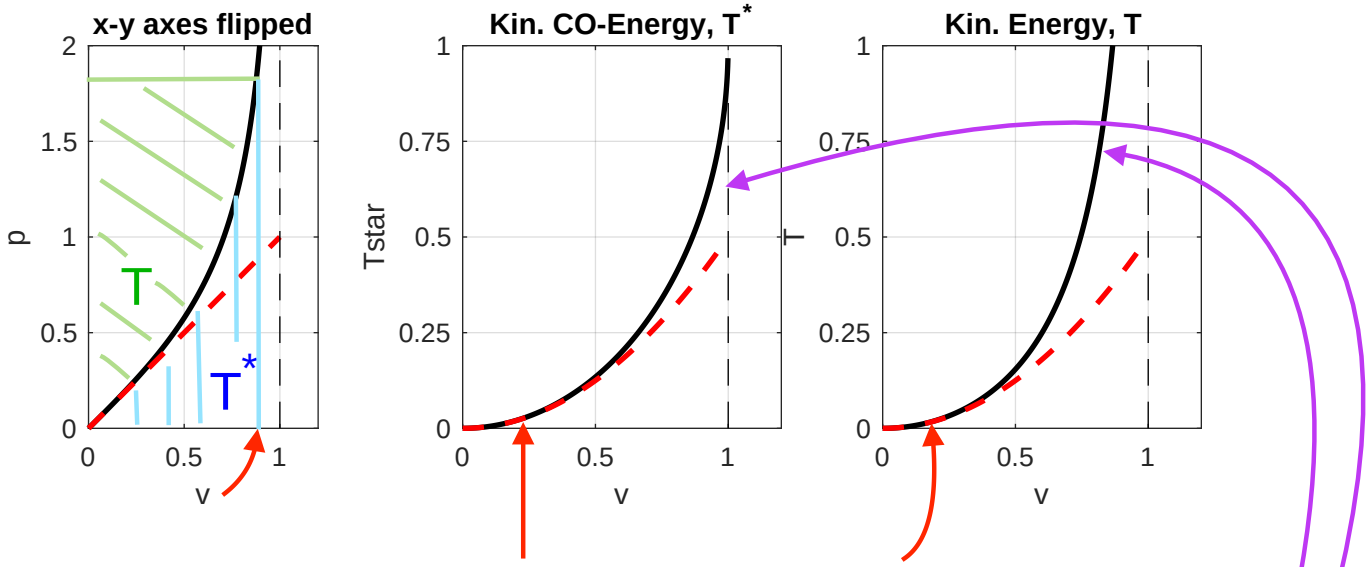
Kinetic co-energy vs kinetic energy, graphically.

Below, velocity is NORMALIZED, so “v=1” corresponds to v=c (the speed of light) on plots.





$$T^* \approx T \approx \frac{1}{2} m v^2$$

is ONLY true well below the speed of light!

As velocity gets close to speed of light, T* and T are NOT the same. Also, neither T* nor T is equal to “1/2 * m * v^2” in this domain, too.