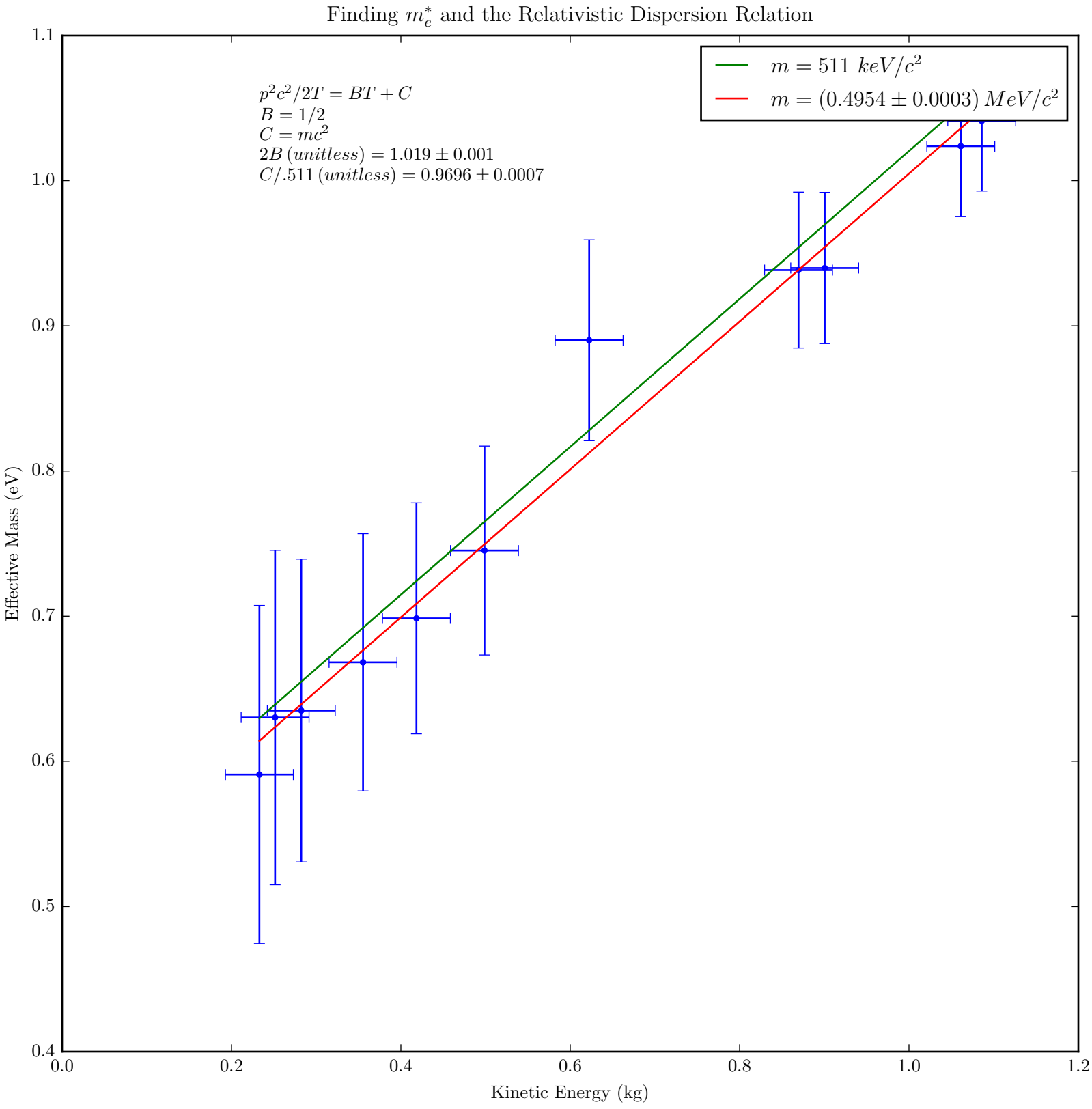
Finding m_e^* and the Relativistic Dispersion Relation
$p^2c^2/2T = BT + C$
$B = 1/2$
$C = mc^2$
$2B\,(unitless) = 1.019 \pm 0.001$
$C/.511\,(unitless) = 0.9696 \pm 0.0007$
$m = 511\ keV/c^2$
$m = (0.4954 \pm 0.0003)\ MeV/c^2$
Effective Mass (eV)
Kinetic Energy (kg)
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.0
0.2
0.4
0.6
0.8
1.0
1.2