

In[6]:= {Slider[Dynamic[thin], {0.01, 3.14, 0.01}], Style[NumberForm[Dynamic[thin], {3, 2}]]}

Out[6]= {  , 1.57 }

In[7]:= {Slider[Dynamic[psidotin], {0.0, 62.83, 0.1}], Style[NumberForm[Dynamic[psidotin], {3, 2}]]}

Out[7]= {  , 6.3 }

In[8]:= {Slider[Dynamic[phidotin], {-31.4, 31.4, 0.1}], Style[NumberForm[Dynamic[phidotin], {3, 2}]]}

Out[8]= {  , 3.55271×10^{-15} }

In[9]:= Dynamic[pps = ppsi[thin, phidotin, psidotin]]

Out[9]= 9.45

In[10]:= Dynamic[pph = pphi[thin, phidotin, psidotin]]

Out[10]= 0.00752529

In[16]:= Dynamic[eeff = veff[thin, pps, pph]]

Out[16]= 0.00796327

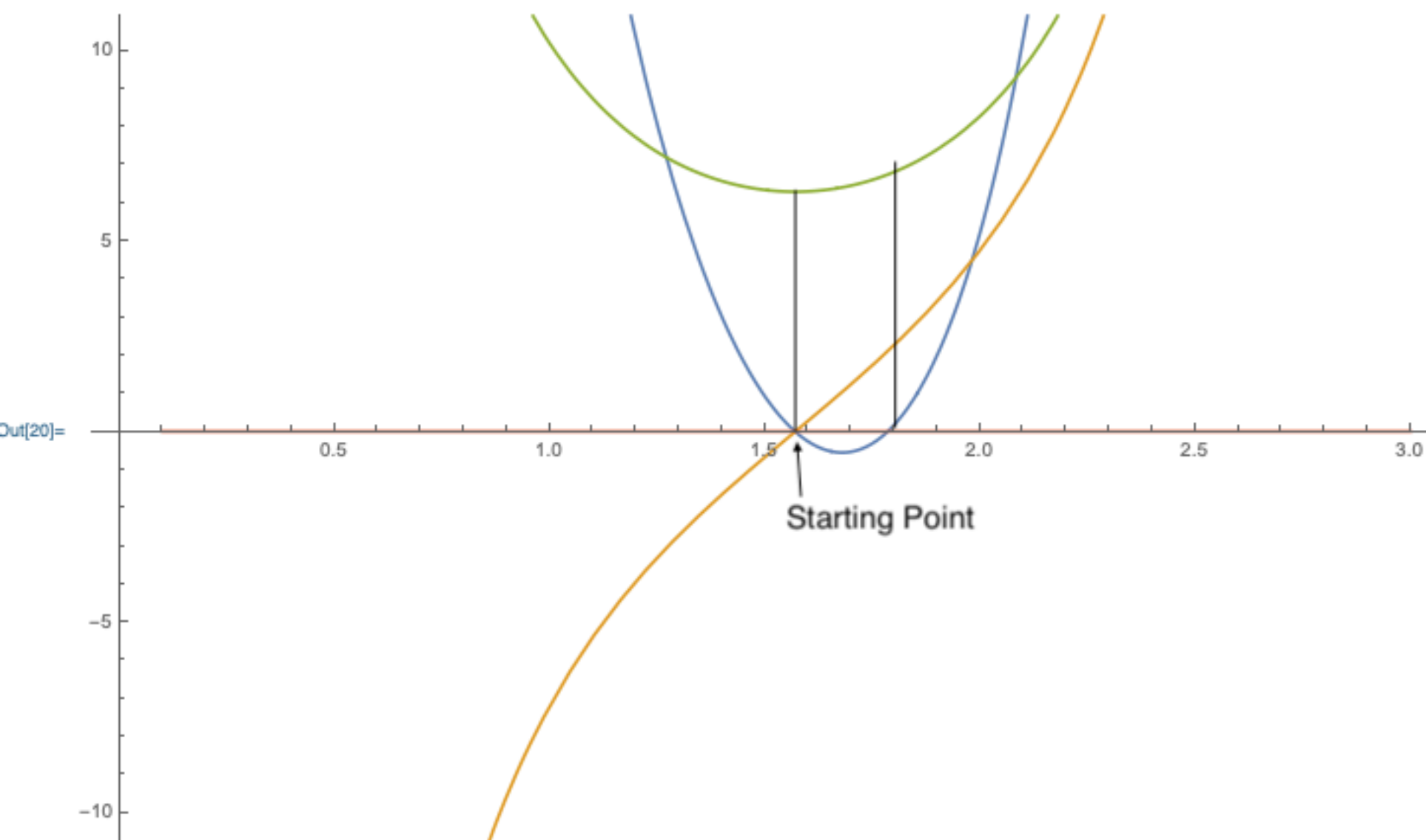
In[17]:= phidot[theta_] := (pph - pps * Cos[theta]) / iperp / (Sin[theta]) ^ 2

In[18]:= psidot[theta_] := pps / i3 - Cos[theta] * phidot[theta]

In[19]:= {Slider[Dynamic[pr], {0.01, 1000, 0.1}], Style[NumberForm[Dynamic[pr], {3, 2}]]}

Out[19]= {  , 10.91 }

In[20]:= Dynamic[Plot[{veff[thet, pps, pph], phidot[thet], psidot[thet], eeff}, {thet, 0.1, 3.0}, PlotRange -> {-pr, pr}]]



Blue = veff, Orange = phidot, Green = psidot, Red = eeff = total effective energy