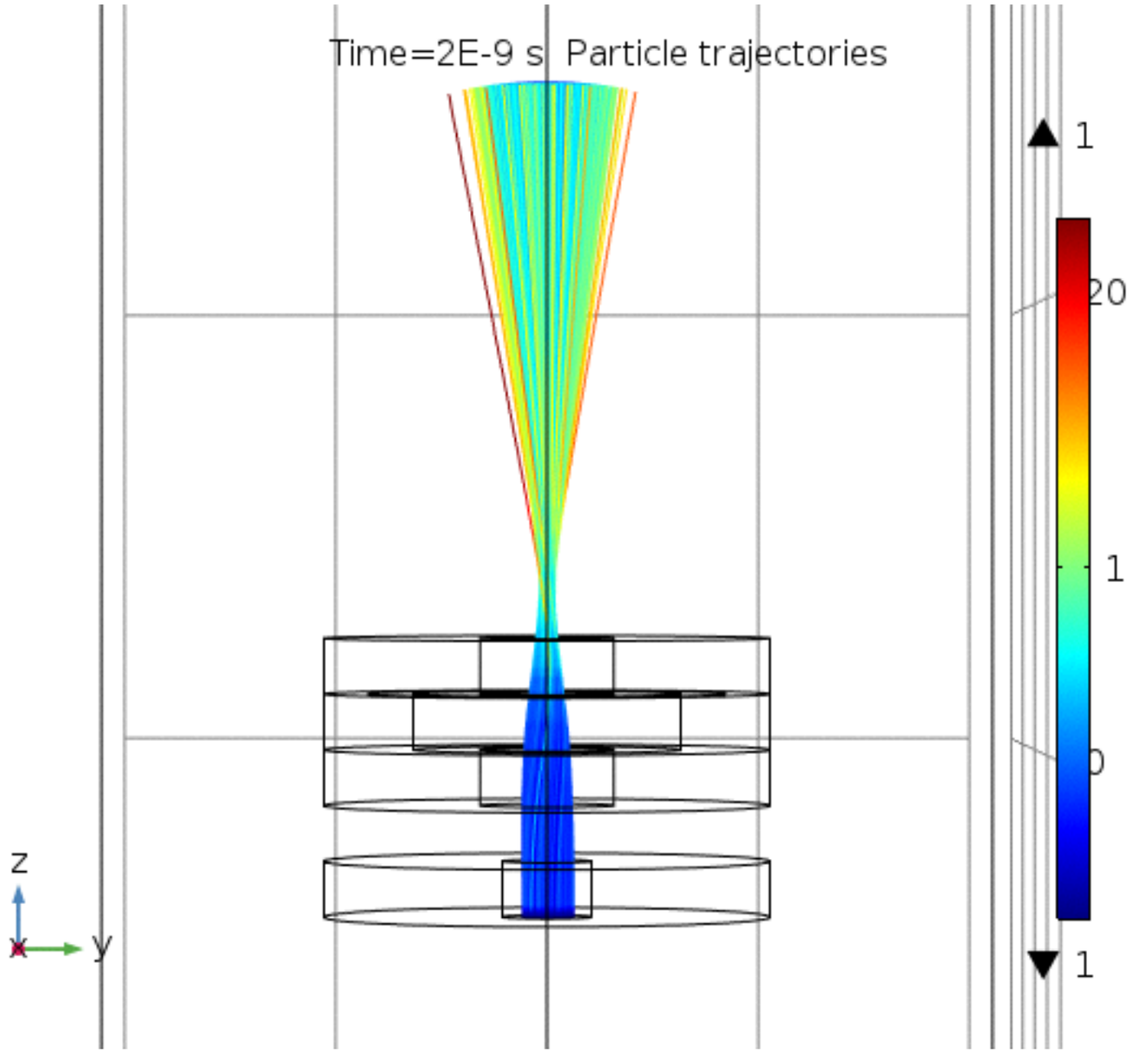
Ekin = 1 keV; I = 0.45A*1000.

Mesh scale = Finer
Time steps 0, 2e-9/200, 2e-9



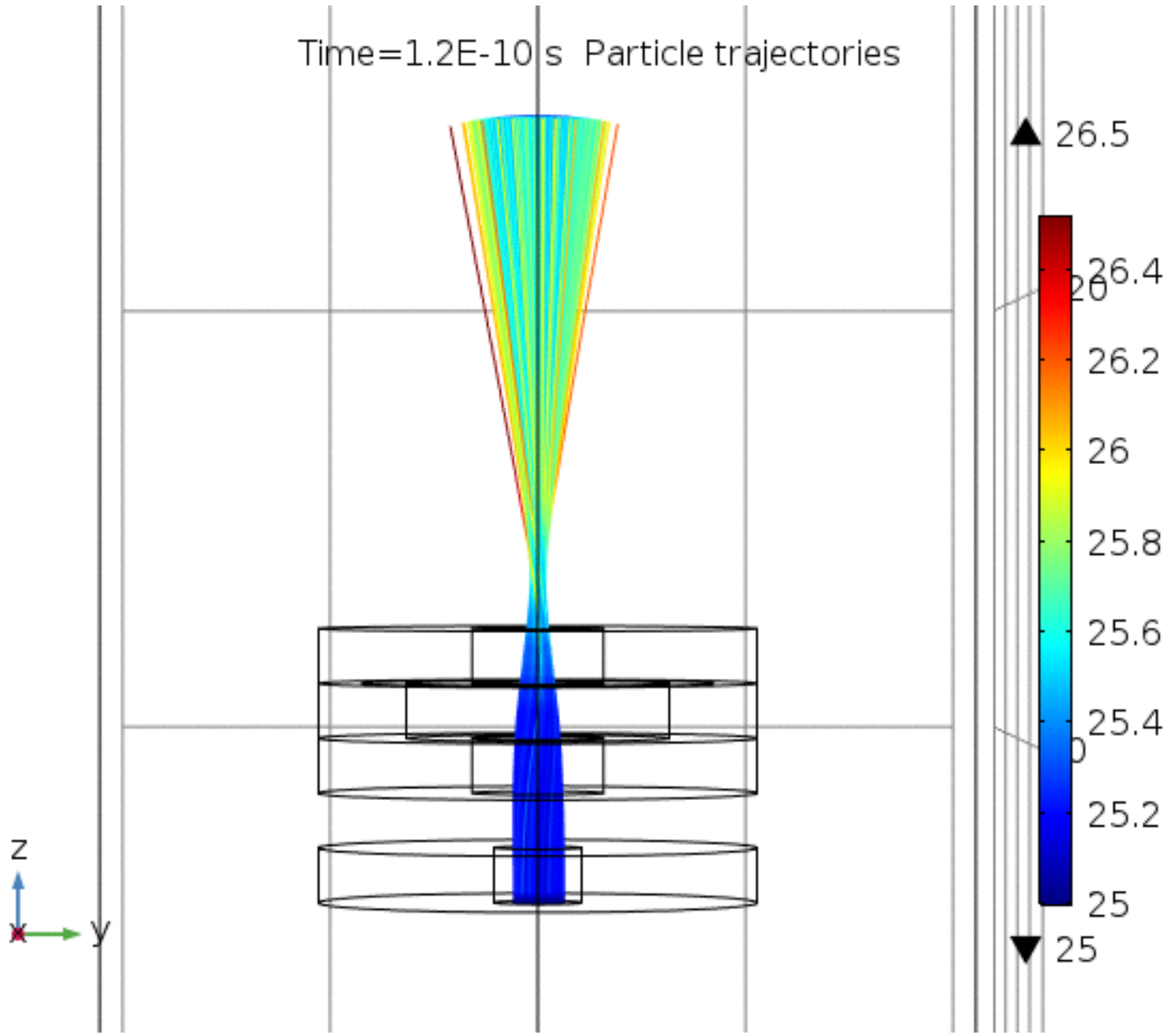
E max = 1 keV
E min = 1 keV

Energy is conserved (although the color bar is not monochromatic)

magnetic_lens_relativ_test.key

E = 25 MeV; I = 360A*1000; Relativistic correction

Mesh scale = Finer
Time steps 0, 1.2e-10/200, 1.2e-10



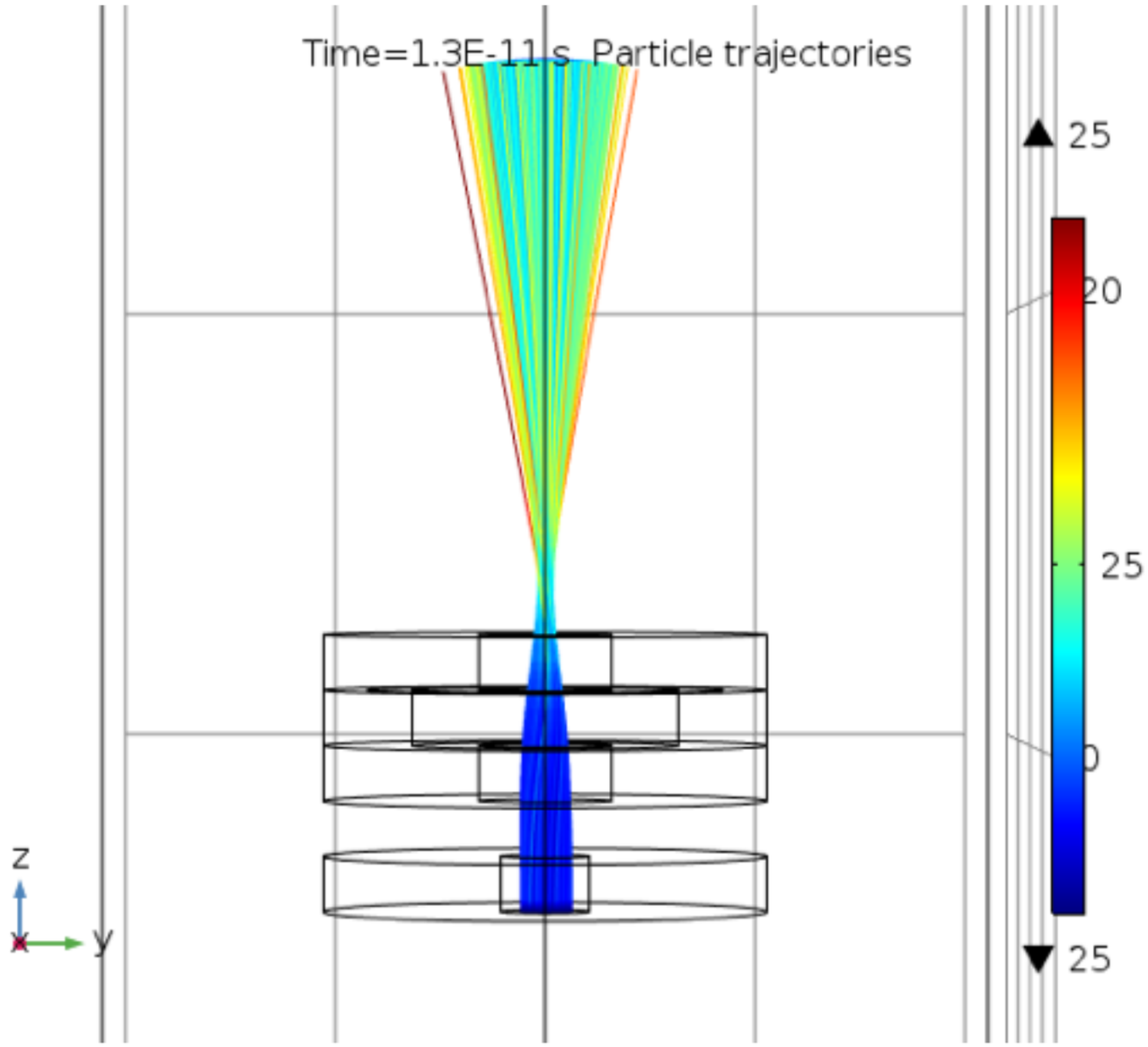
E max = 26.5 MeV
E min = 25 MeV

Energy is not conserved

magnetic_lens_relativ_test.key

E = 25 MeV. I = 71A*1000; No relativistic correction

Mesh scale = Finer
Time steps 0, 1.3e-11/200, 1.3e-11



E max = 25 MeV
E min = 25 MeV

Energy is conserved, although it's not a physically correct case.

magnetic_lens_relativ_test.key