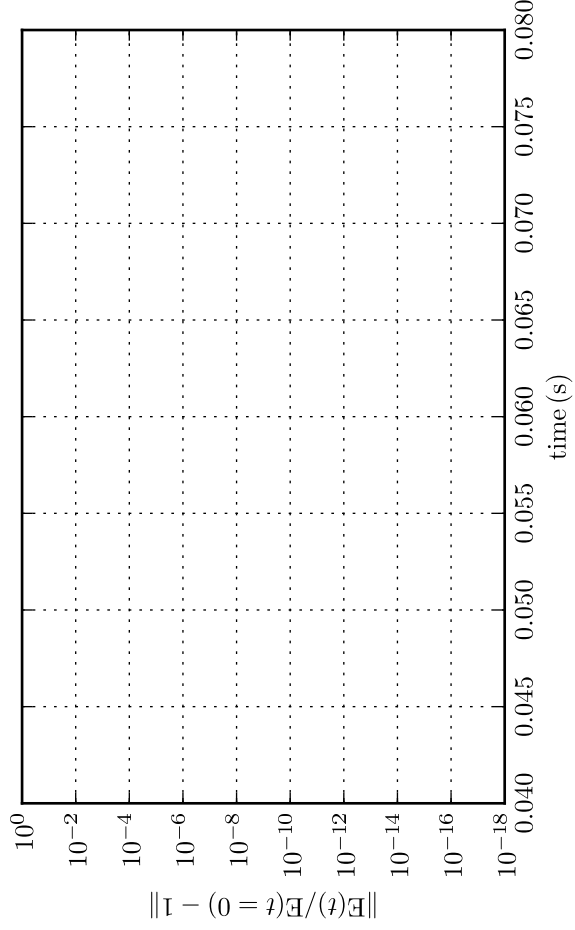
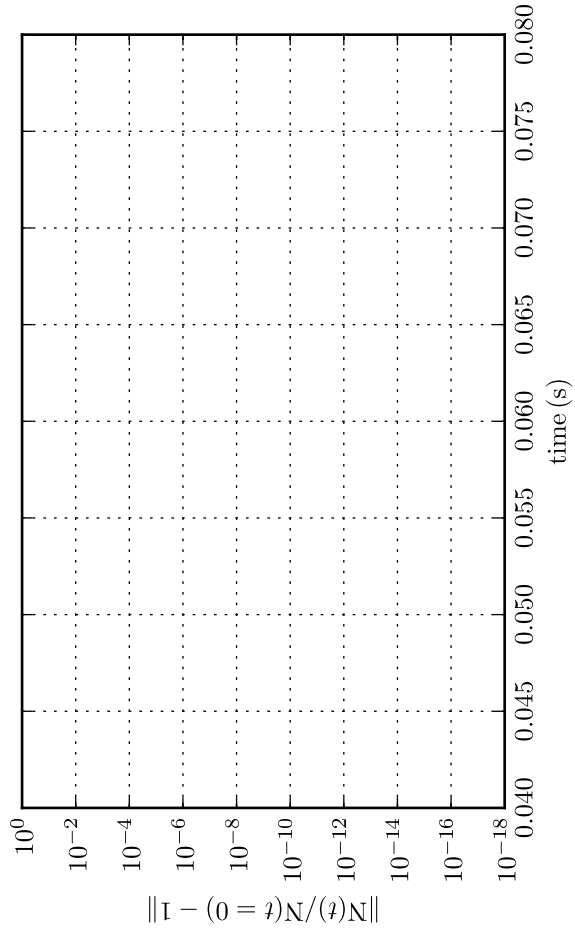
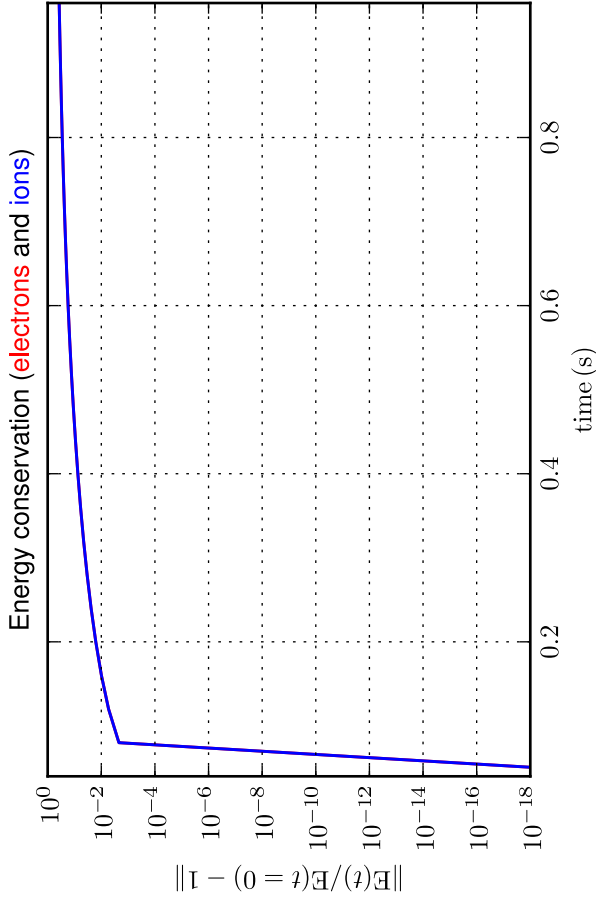
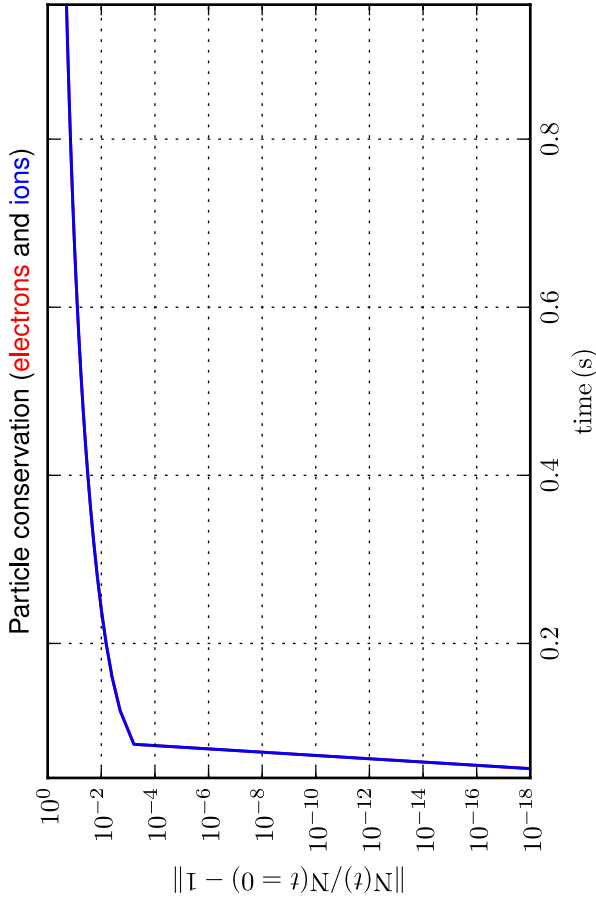
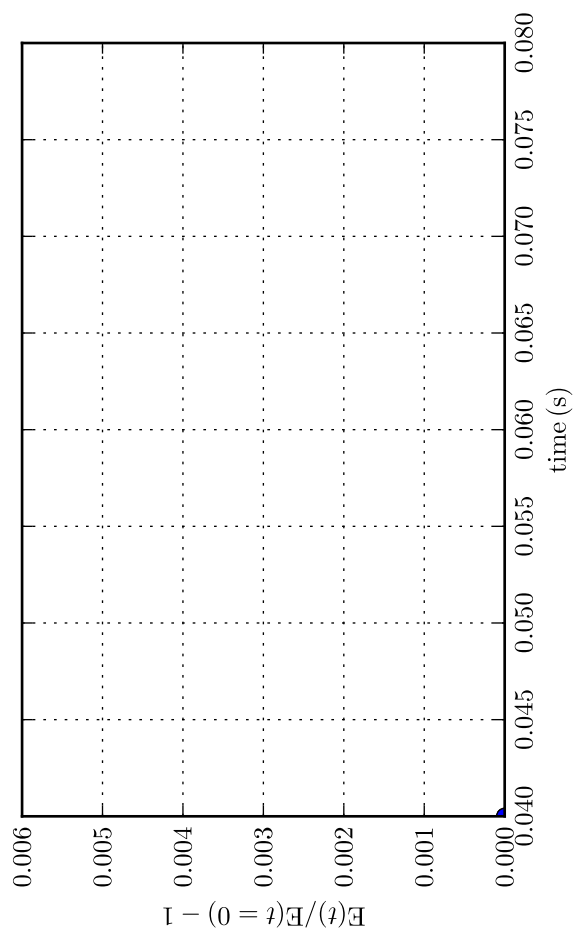
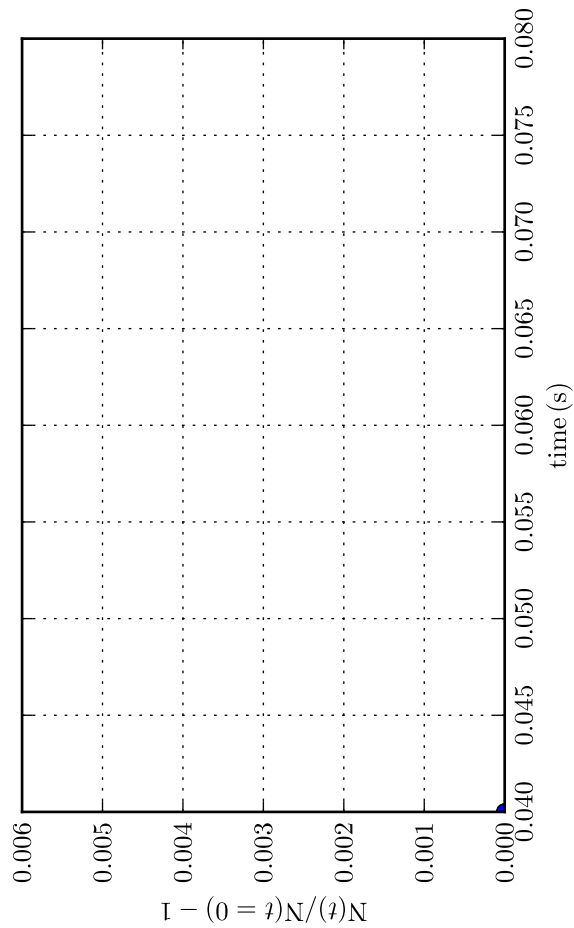
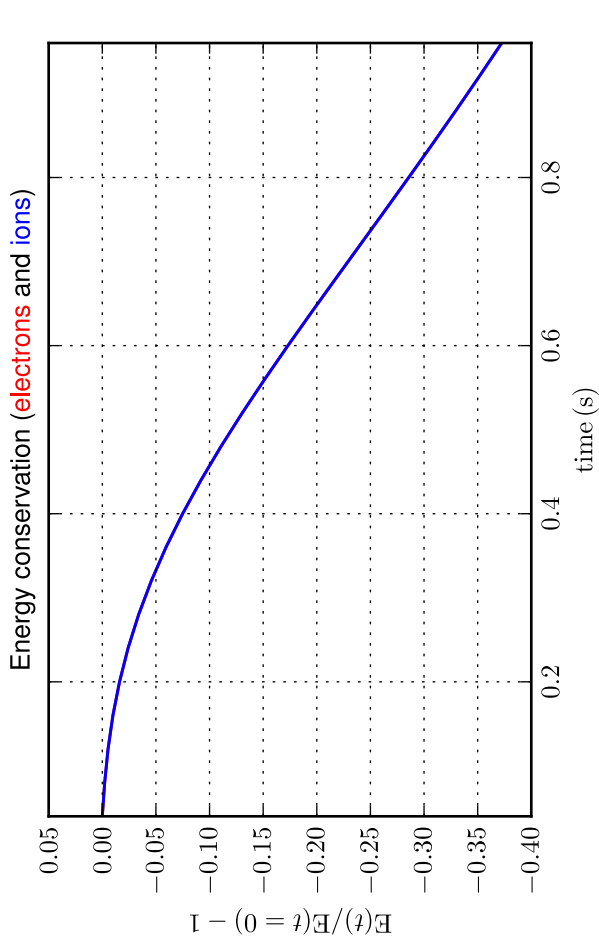
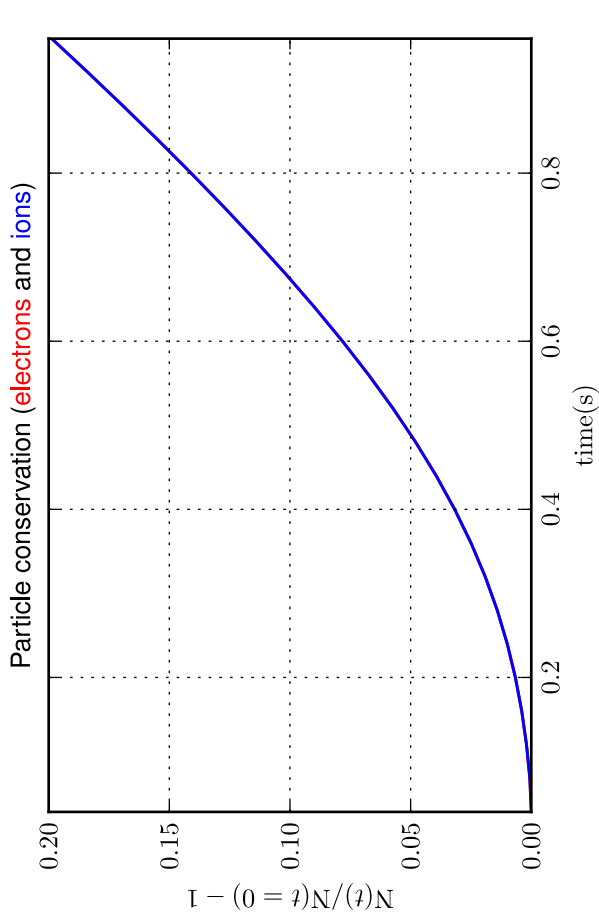


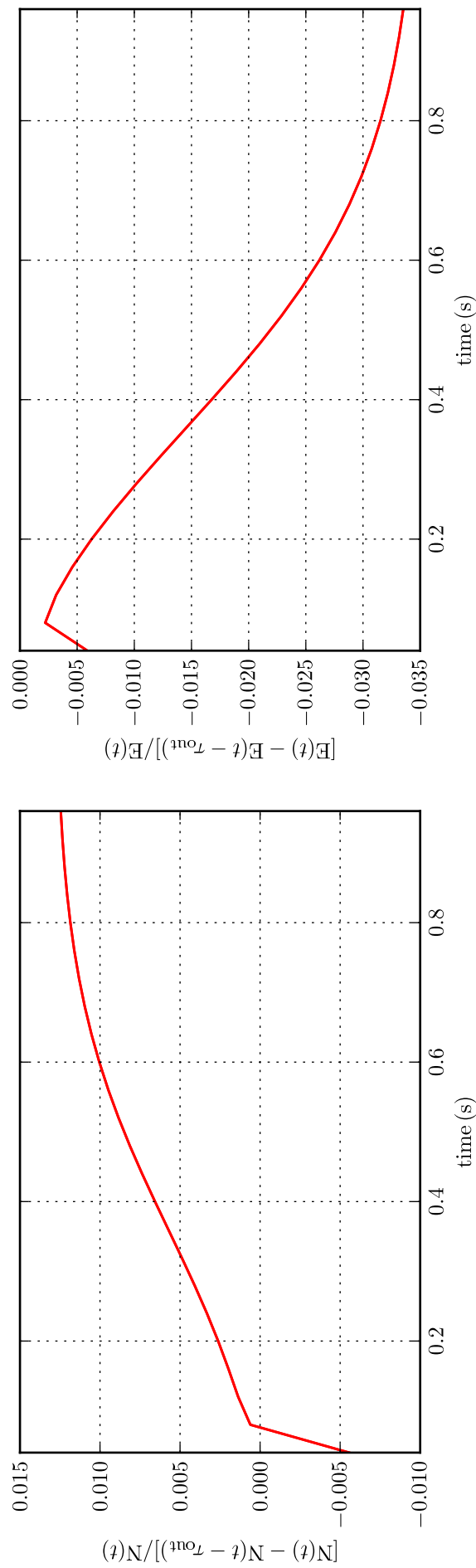
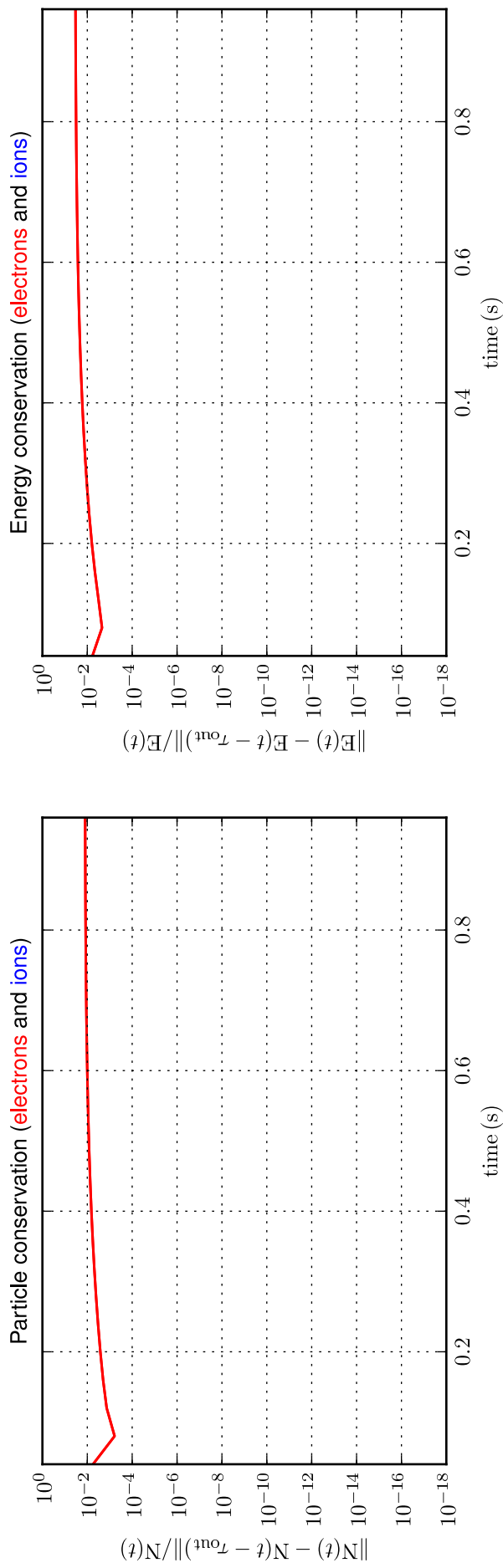
Part. & Energy conservation [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_p = 101$]
 Comparison with initial solution - log scale; total time and zoom over time



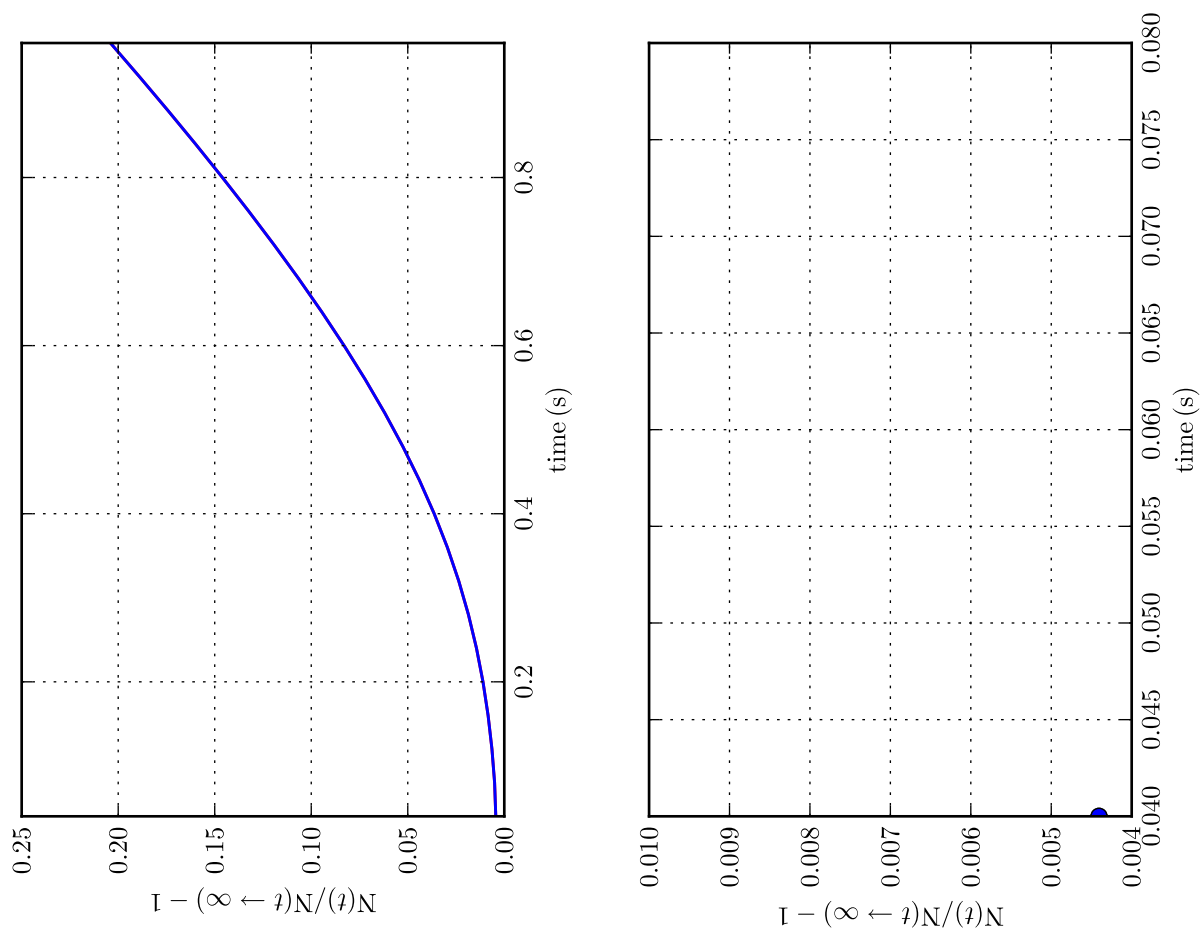
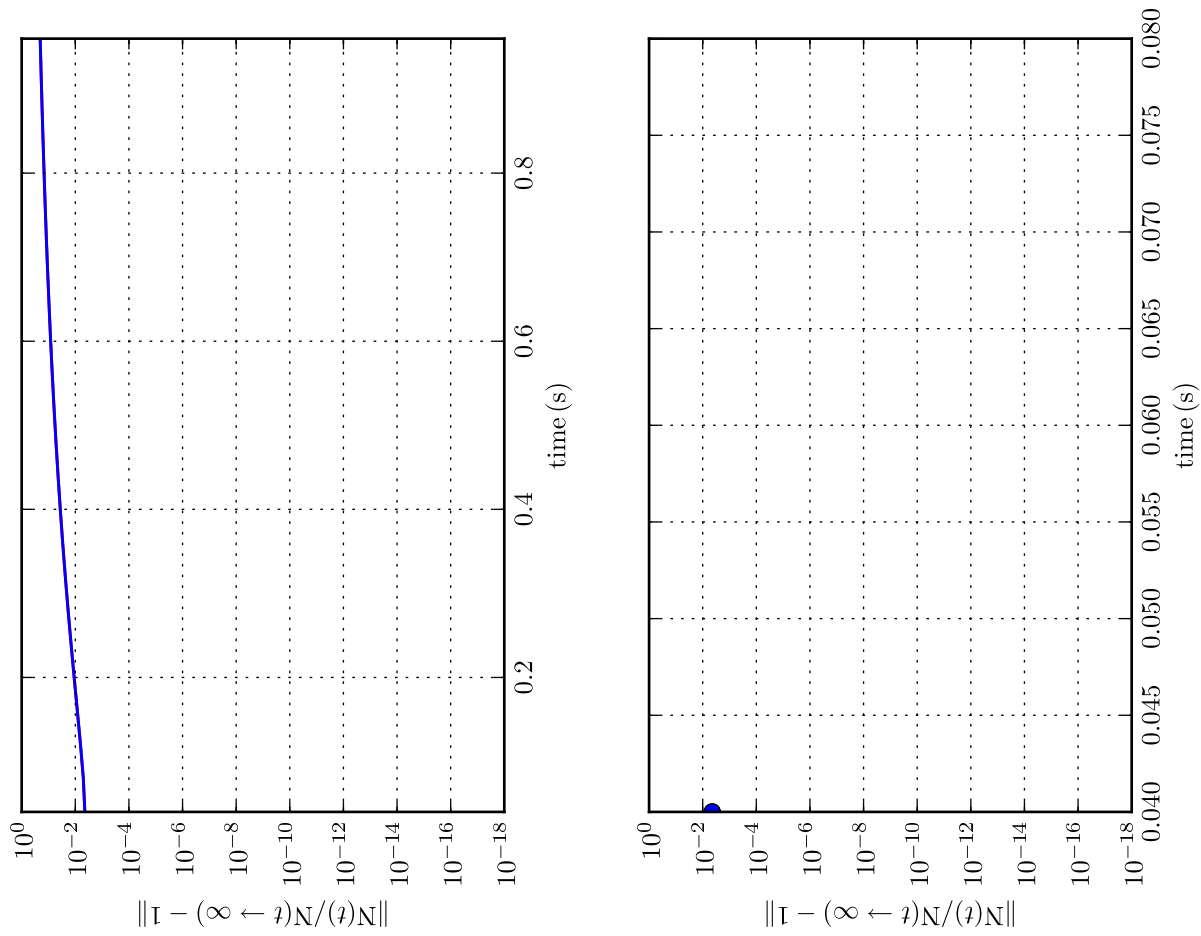
Part. & Energy conservation [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_p = 101$]
 Comparison with initial solution - linear scale; total time and zoom over time



Part. & Energy conservation [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_p = 101$]
 Comparison with previous time-sampled (τ_{out}) solution - log and linear scales

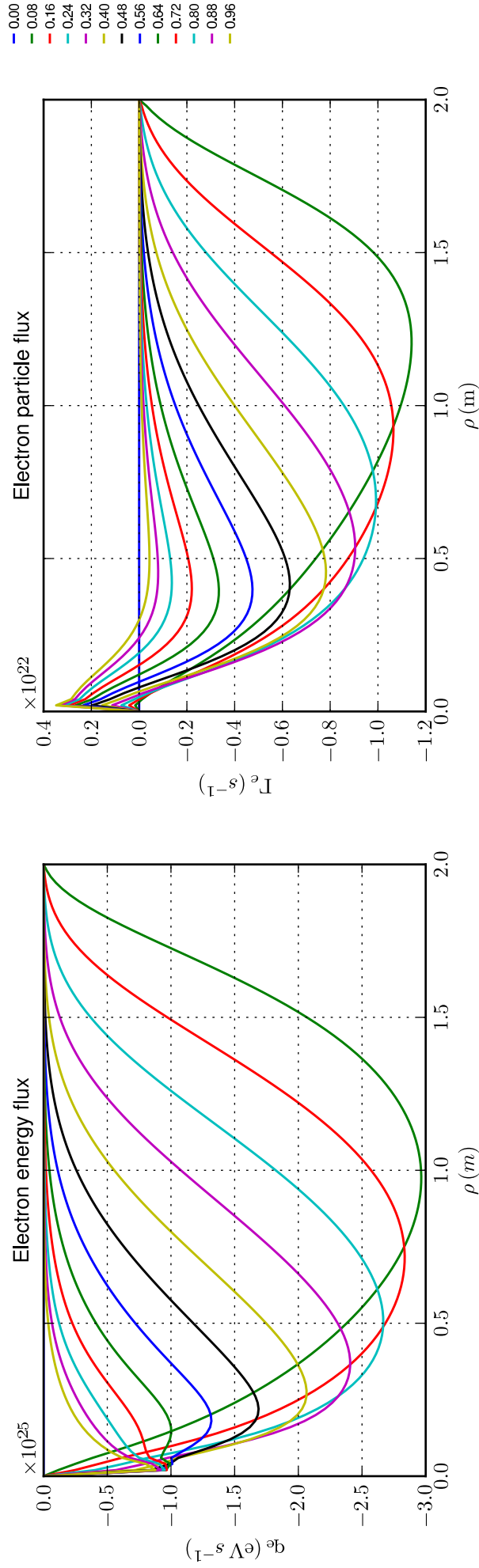
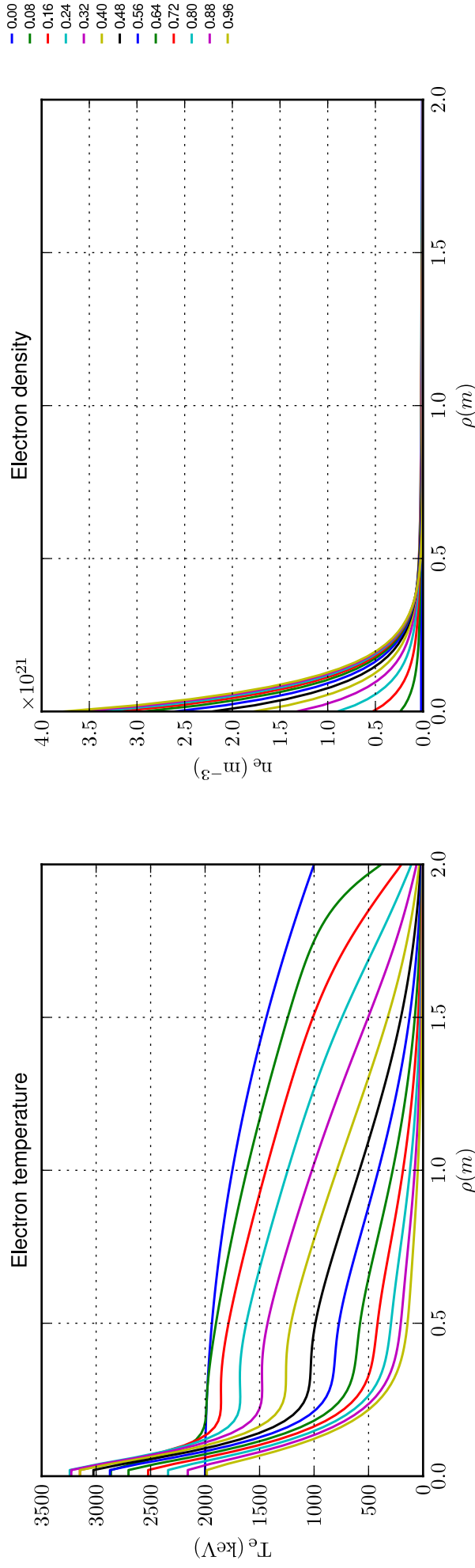


Particle conservation [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_p = 101$]
 Comparison with asymptotic solution (electrons and ions); total time and zoom over time



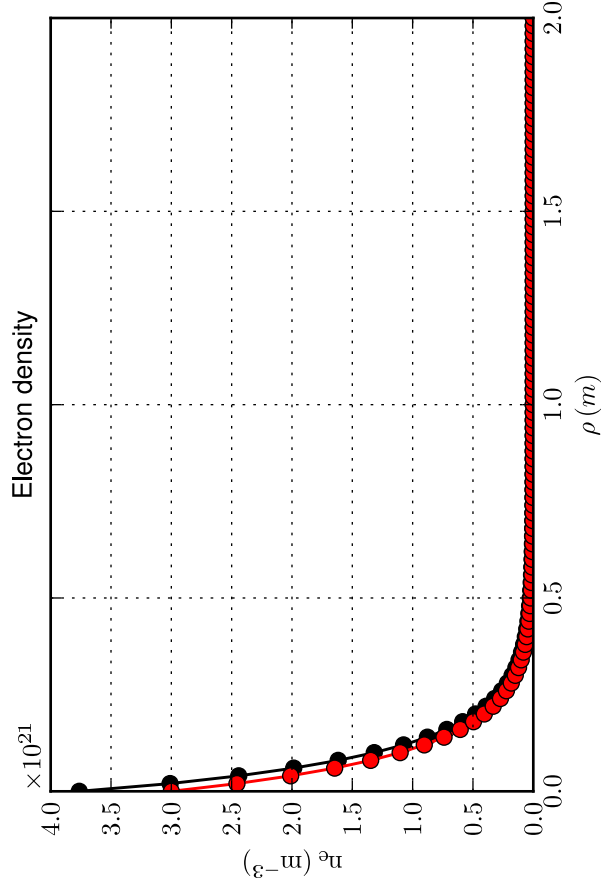
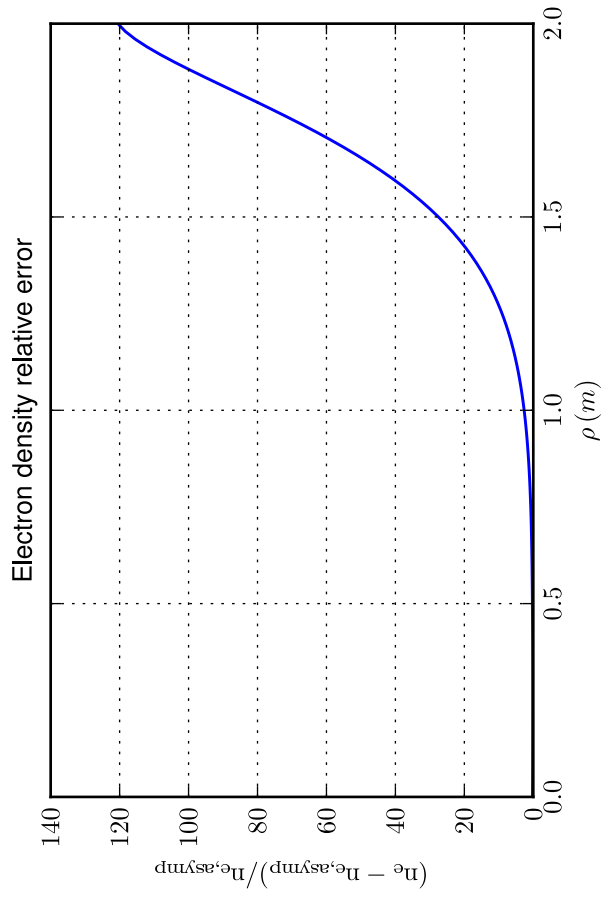
Profiles [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]

Time sampling: total simulation time/10

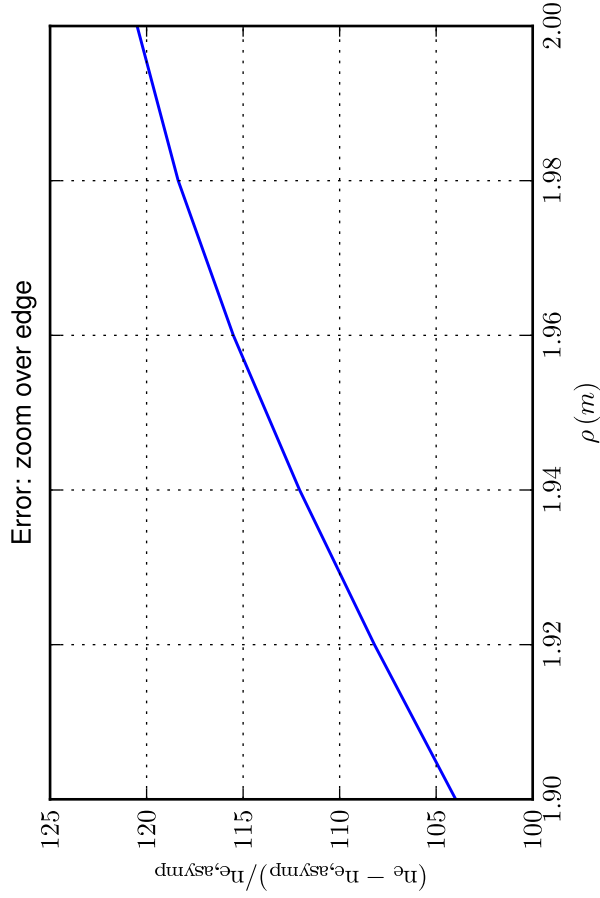
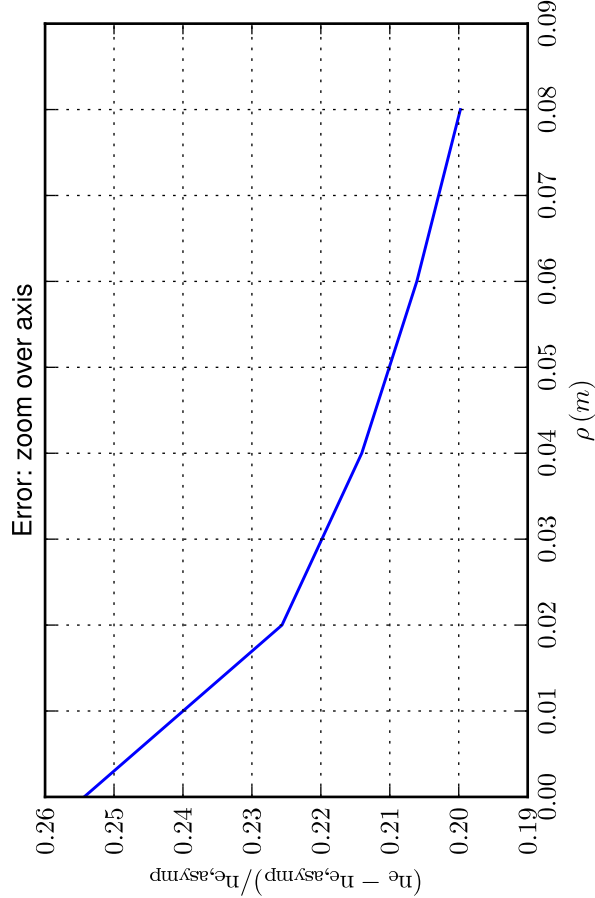


Profiles [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]

Comparison with asymptotic solution

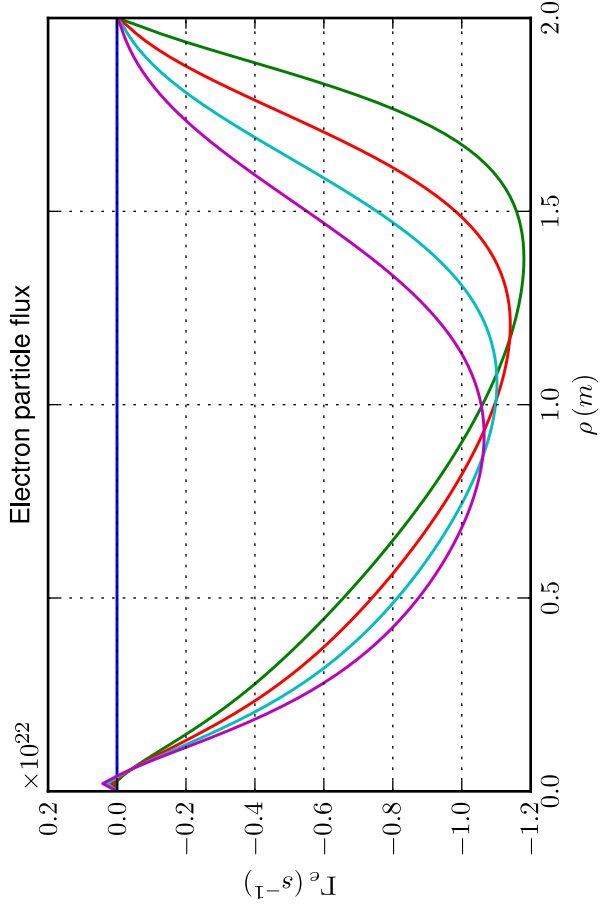
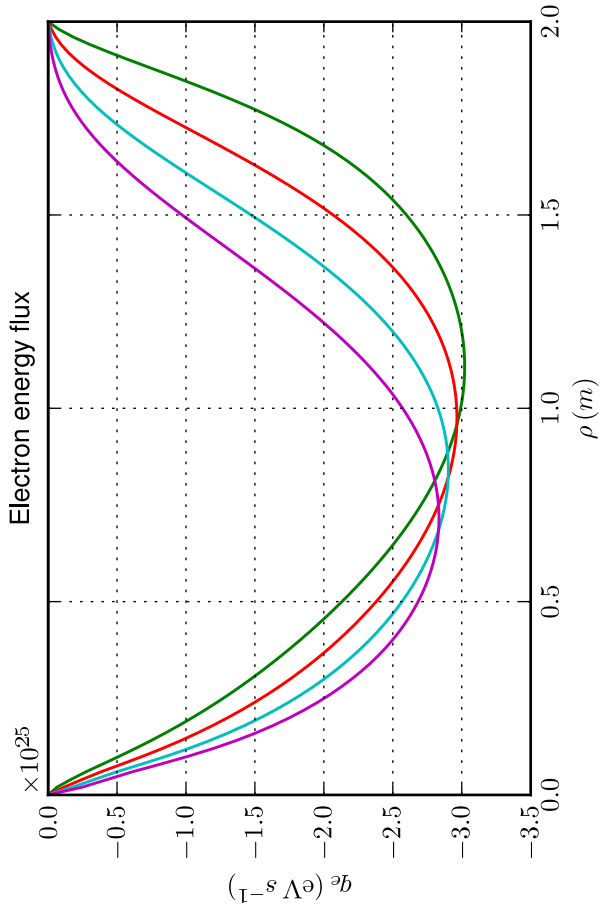
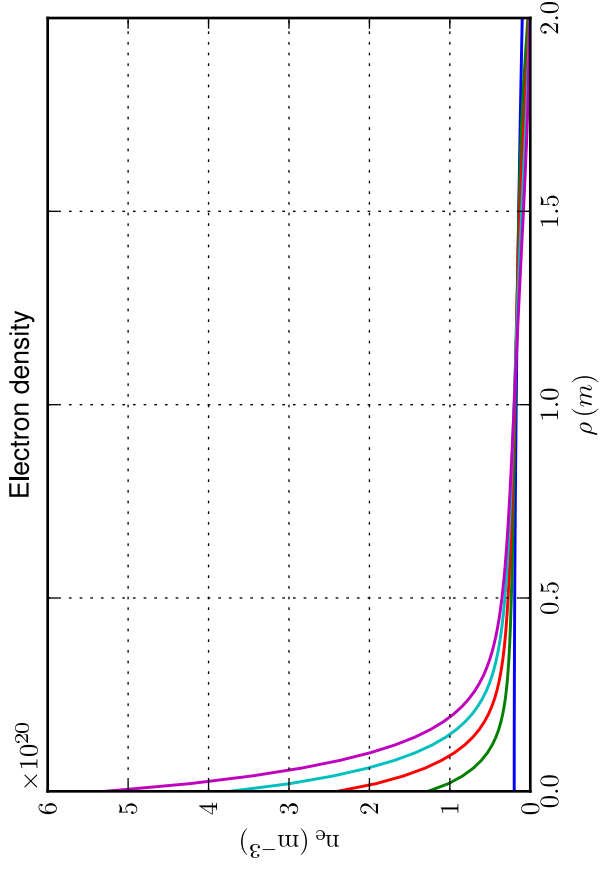
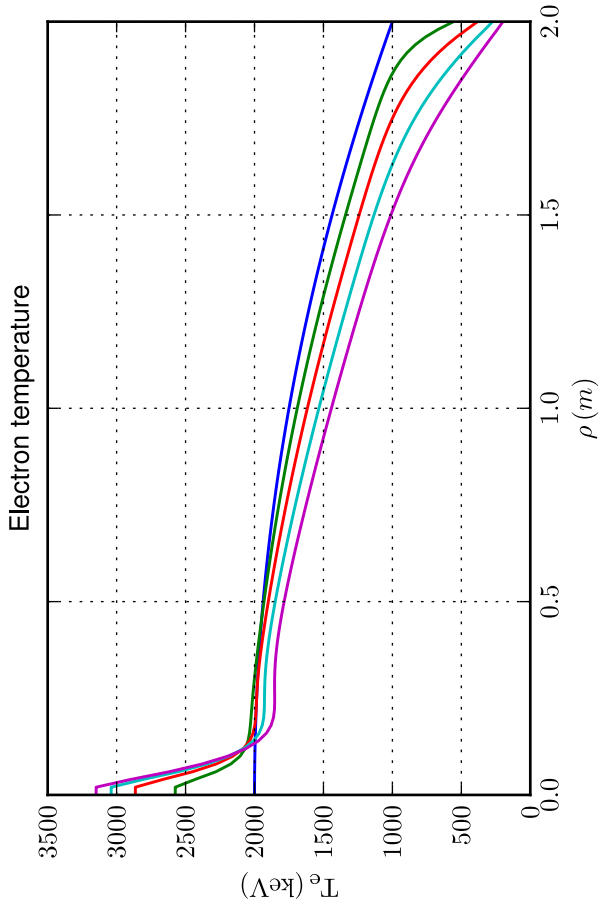


● final calculation
● asymptotic



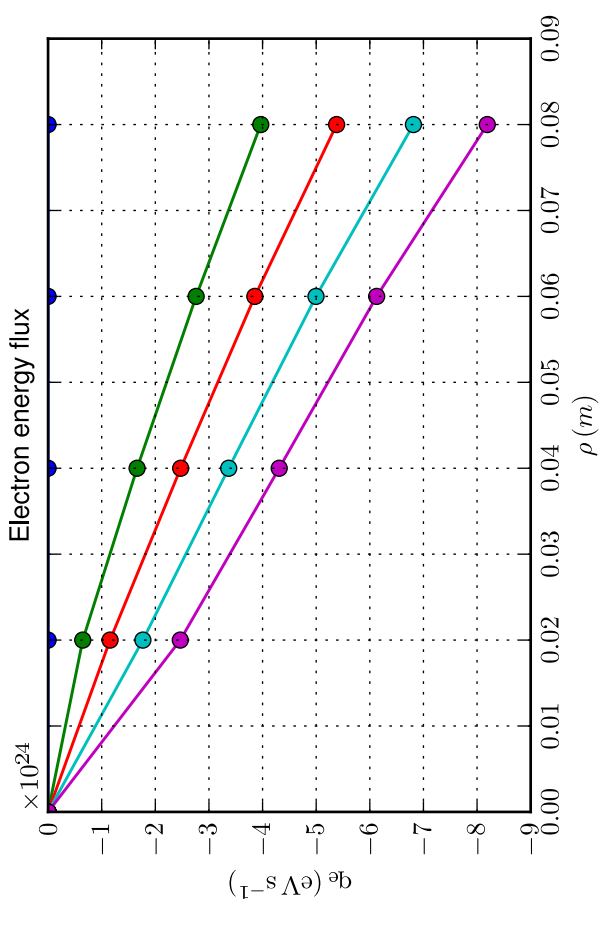
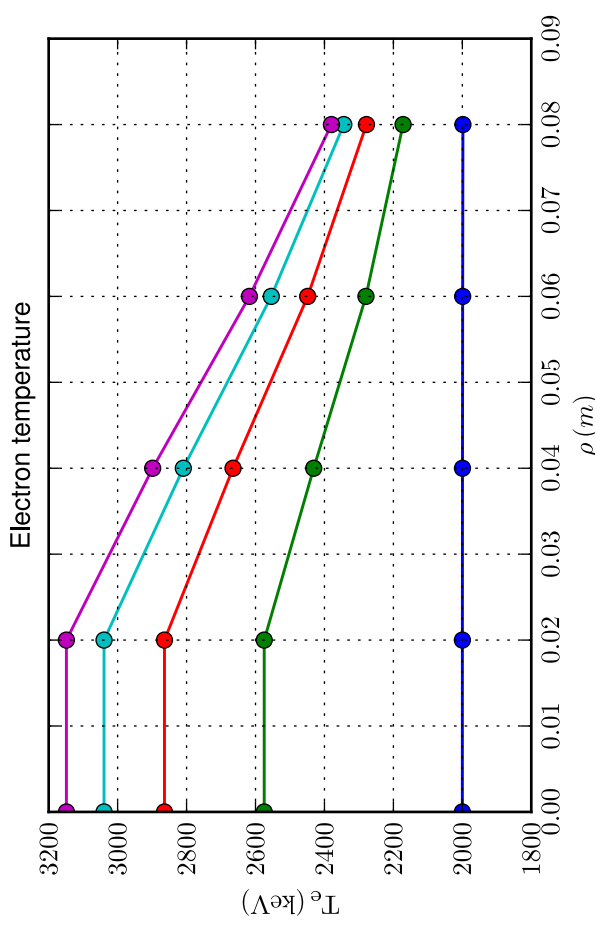
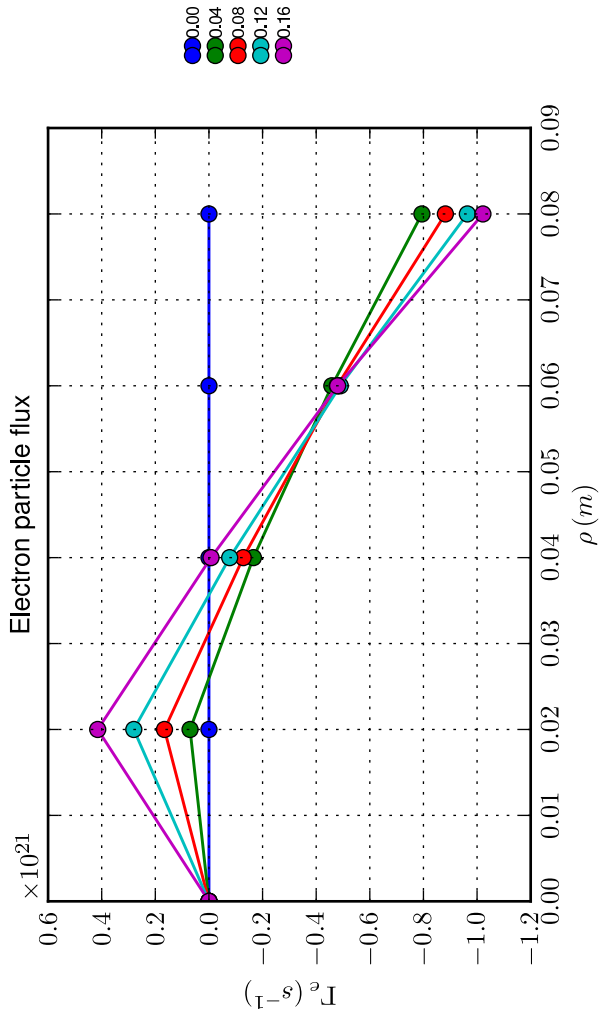
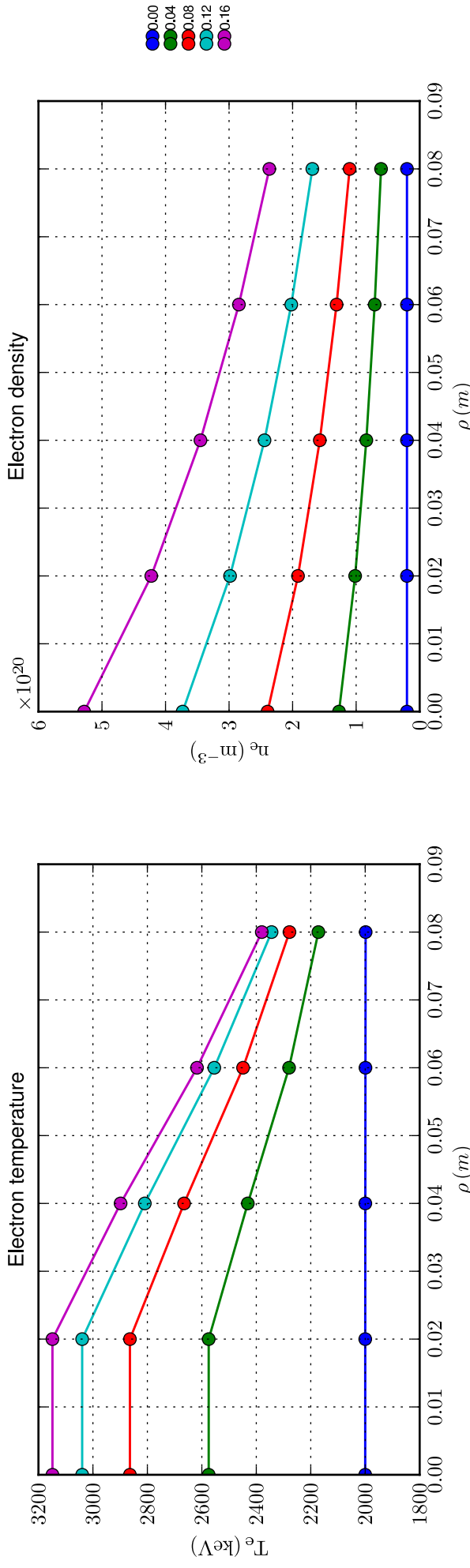
Profiles [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]

Time sampling: first 10 time slices or zoom over time $0.1 \times (a^2/D)/|1 - (Va/D)| = 0.19 \text{ s}$

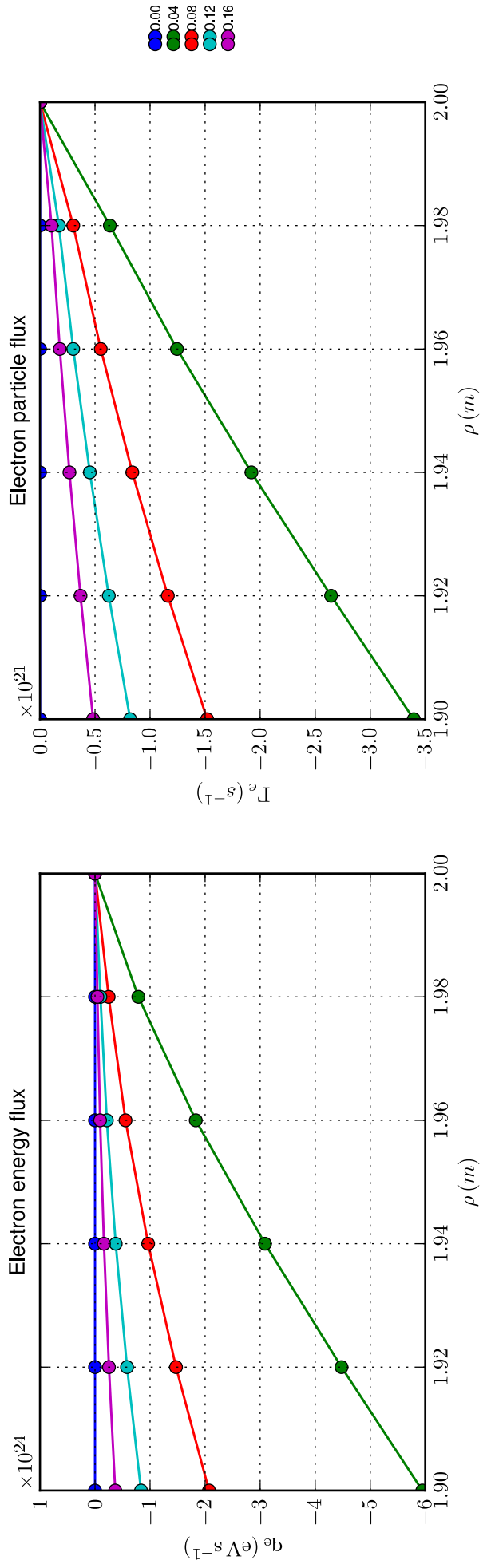
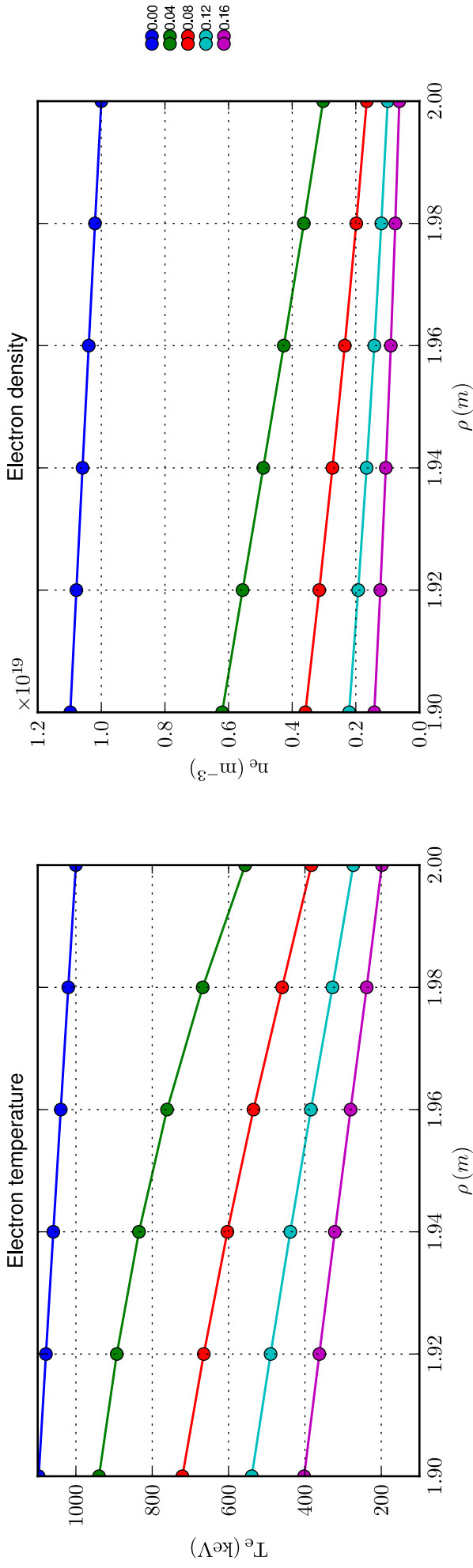


0.00
0.04
0.08
0.12
0.16

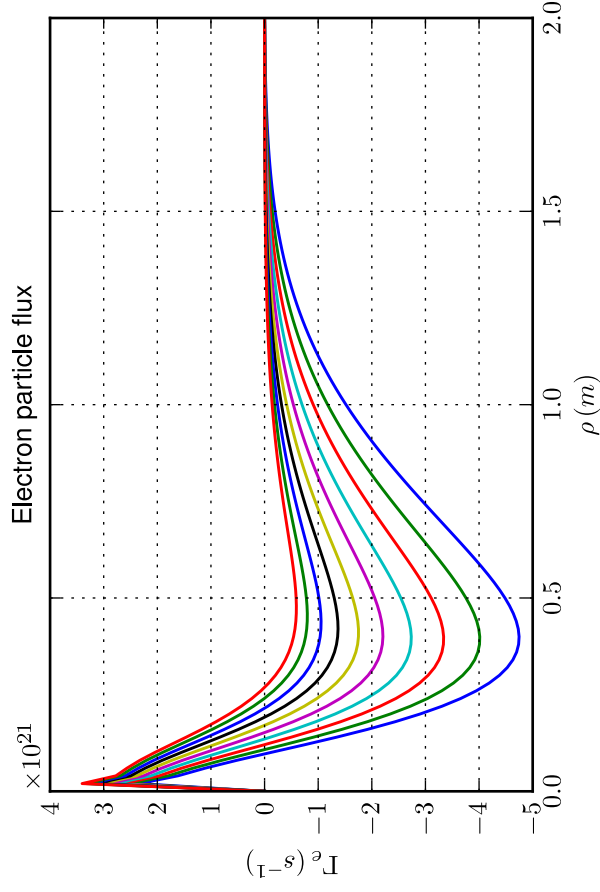
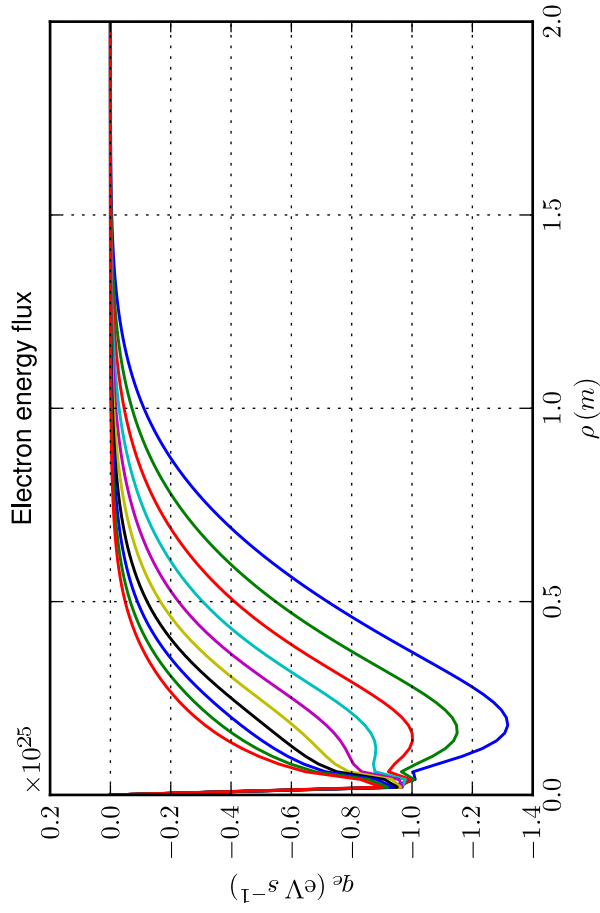
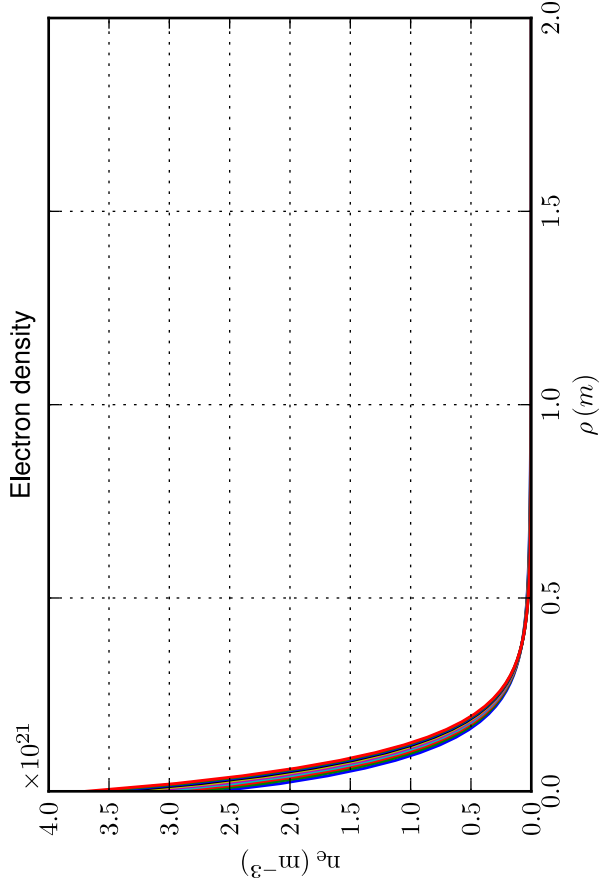
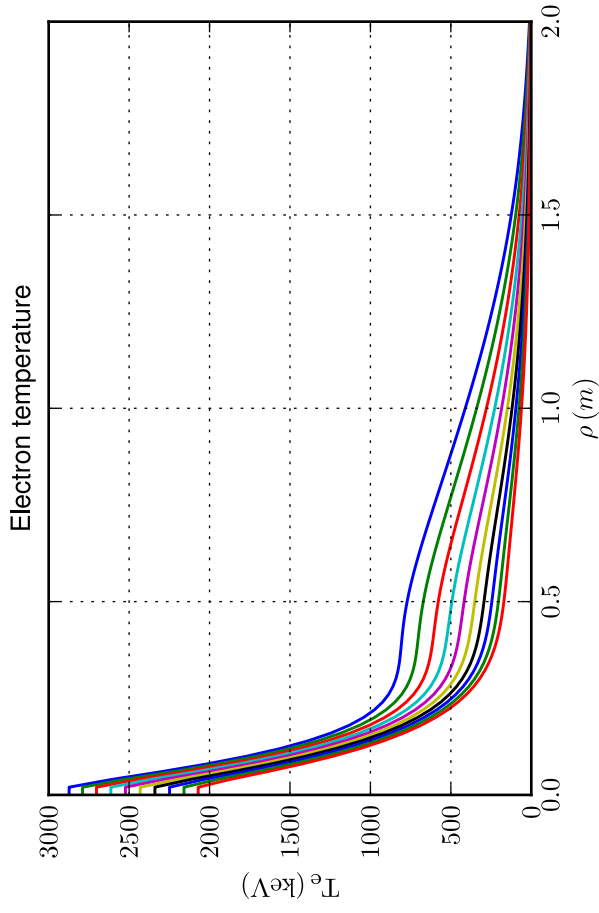
Profiles [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]
 Spatial zoom over magnetic axis; time sampling: first 10 time slices or zoom over time $0.1 \times (a^2/D)/|1 - (Va/D)| = 0.19 \text{ s}$



Profiles [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]
 Spatial zoom over edge; time sampling: first 10 time slices or zoom over time $0.1 \times (a^2/D)/|1 - (V_a/D)| = 0.19 \text{ s}$

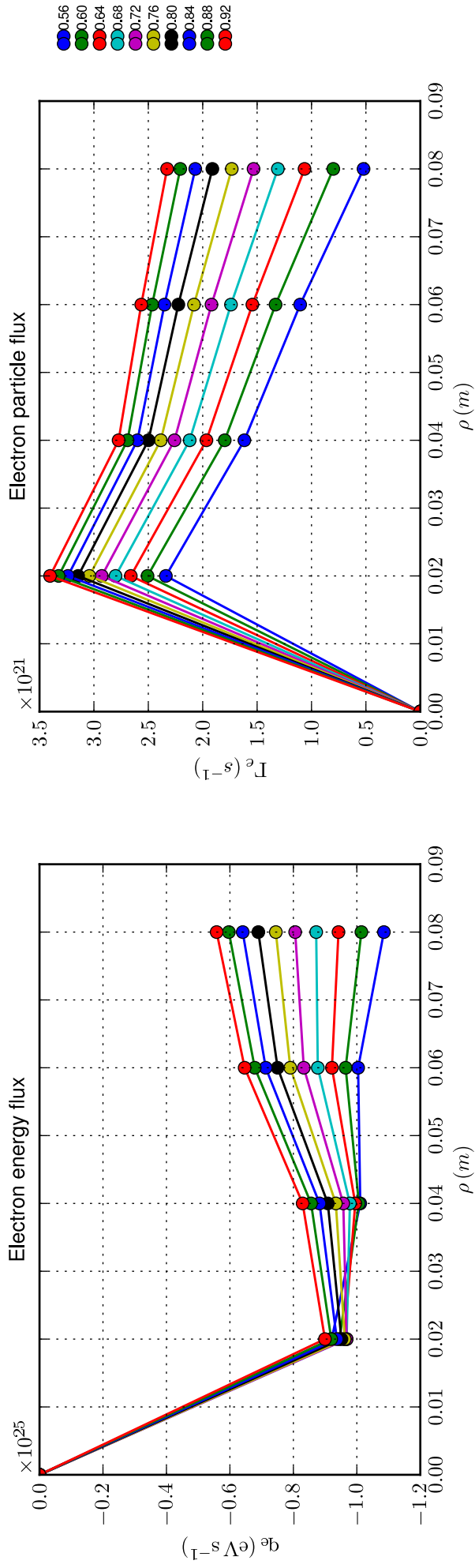
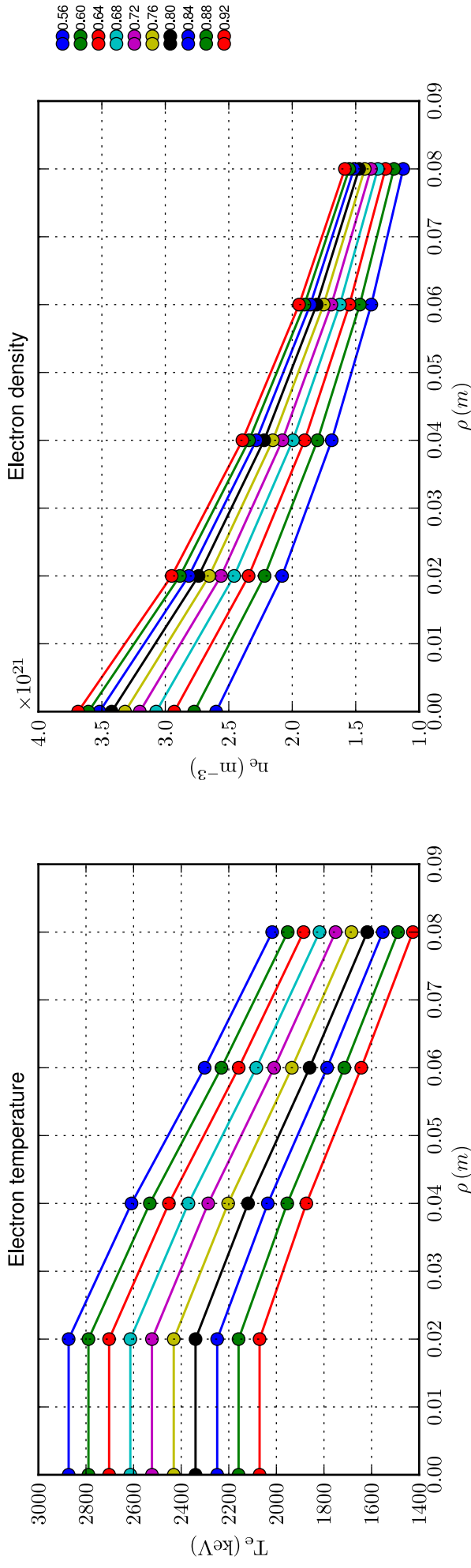


Profiles [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]
 Time sampling: last 10 time slices



0.56
 0.60
 0.64
 0.68
 0.72
 0.76
 0.80
 0.84
 0.88
 0.92

Profiles [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]
 Spatial zoom over magnetic axis; time sampling: last 10 time slices



Profiles [Case: 1.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 4.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]
 Spatial zoom over edge; time sampling: last 10 time slices

