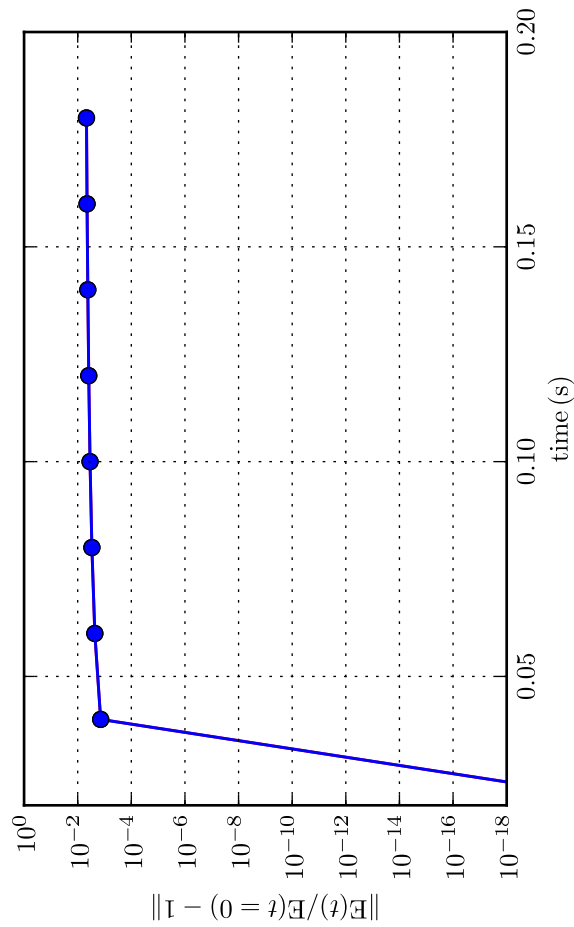
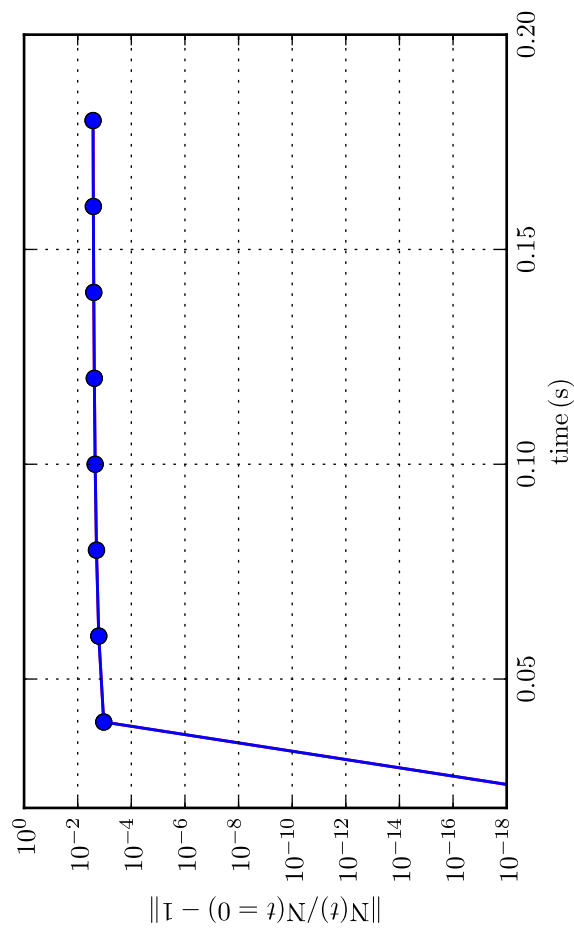
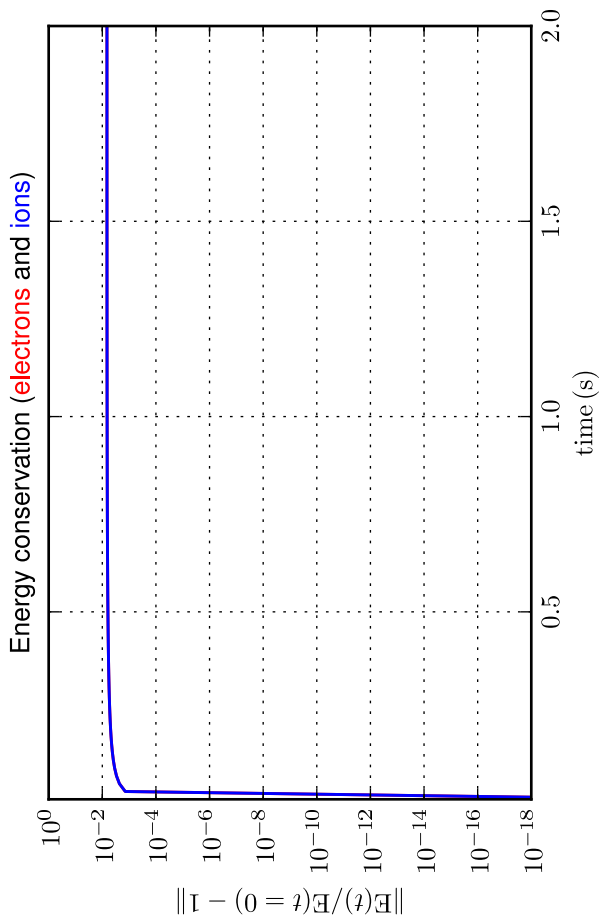
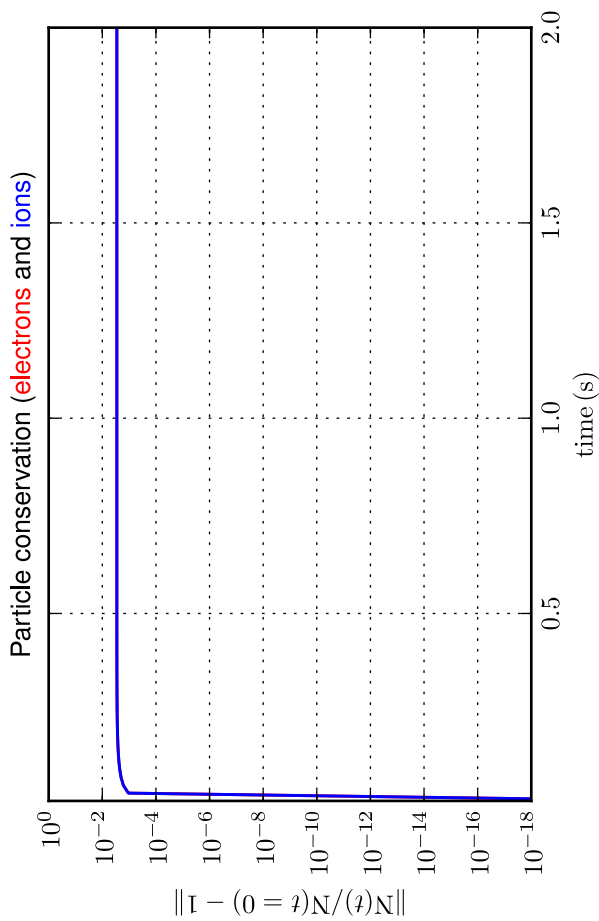
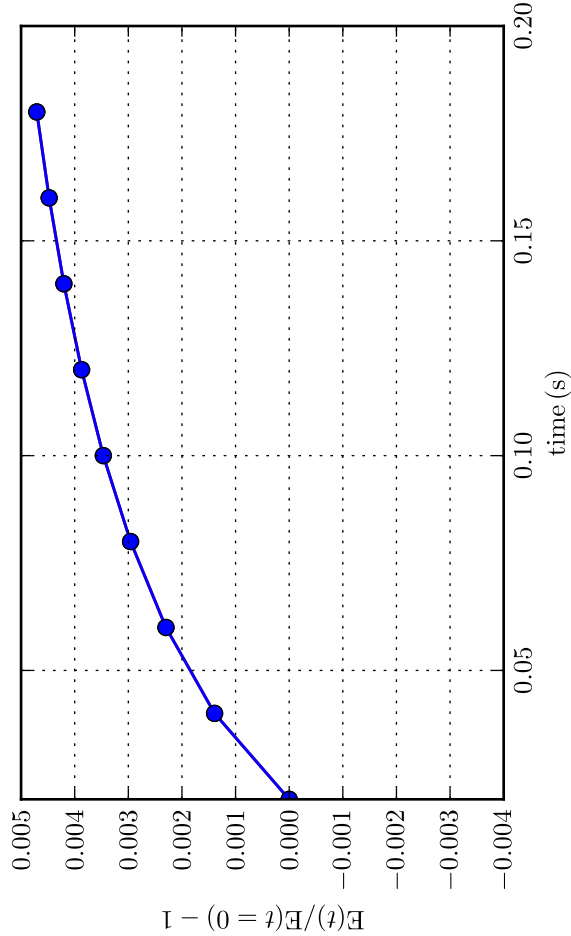
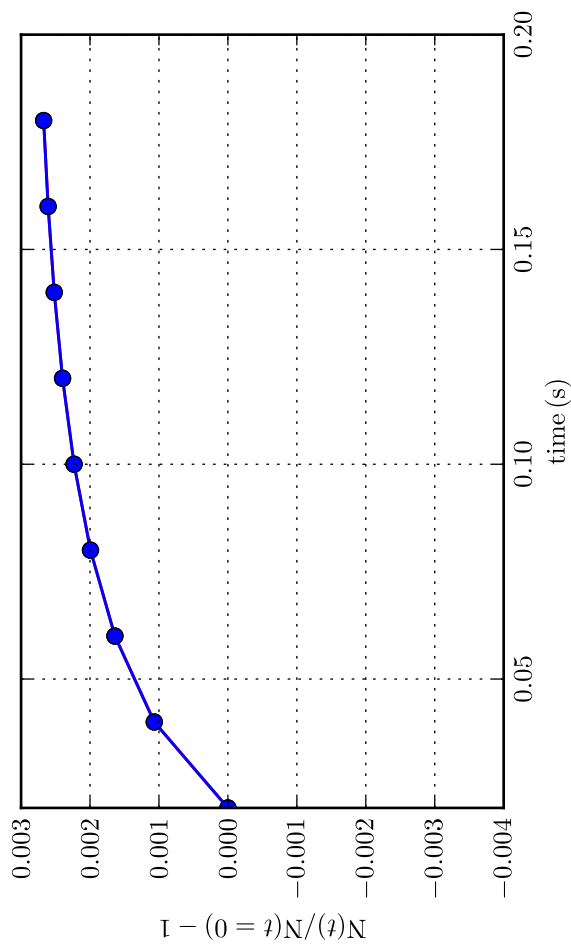
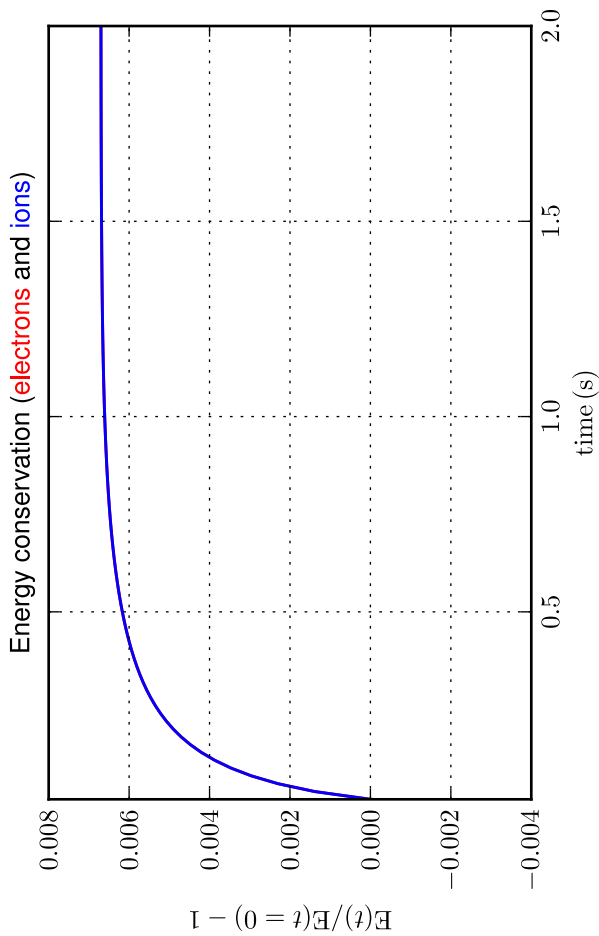
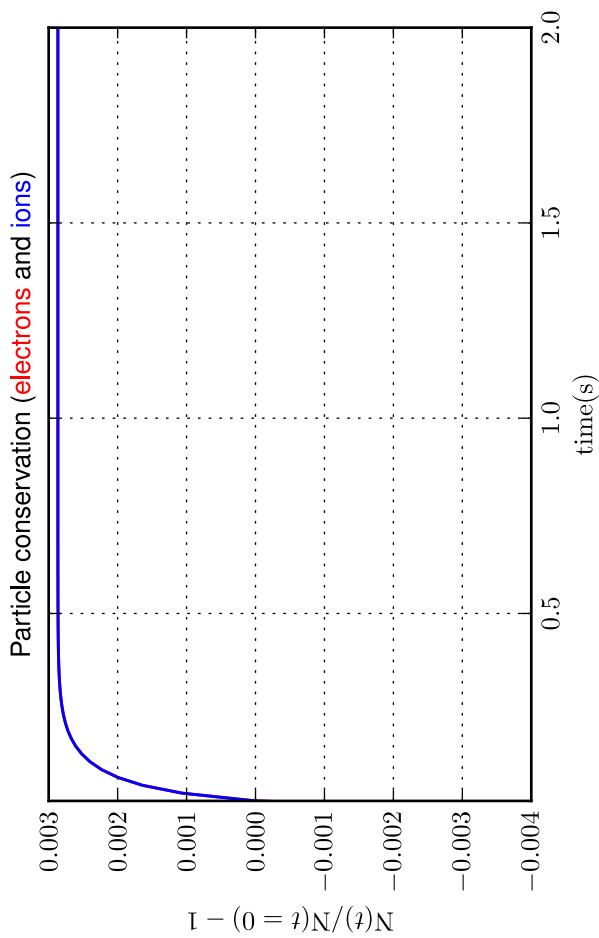


Part. & Energy conservation [Case: I.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_p = 101$]

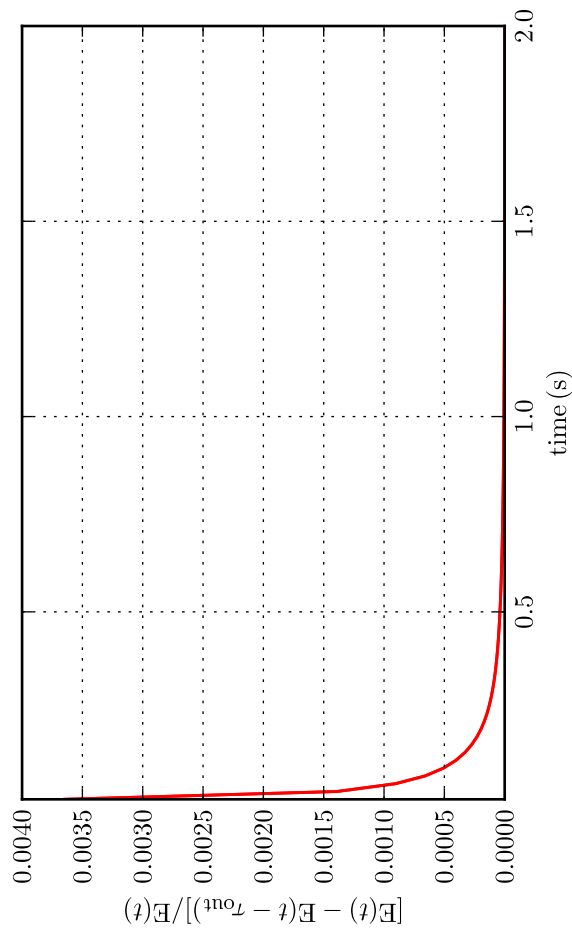
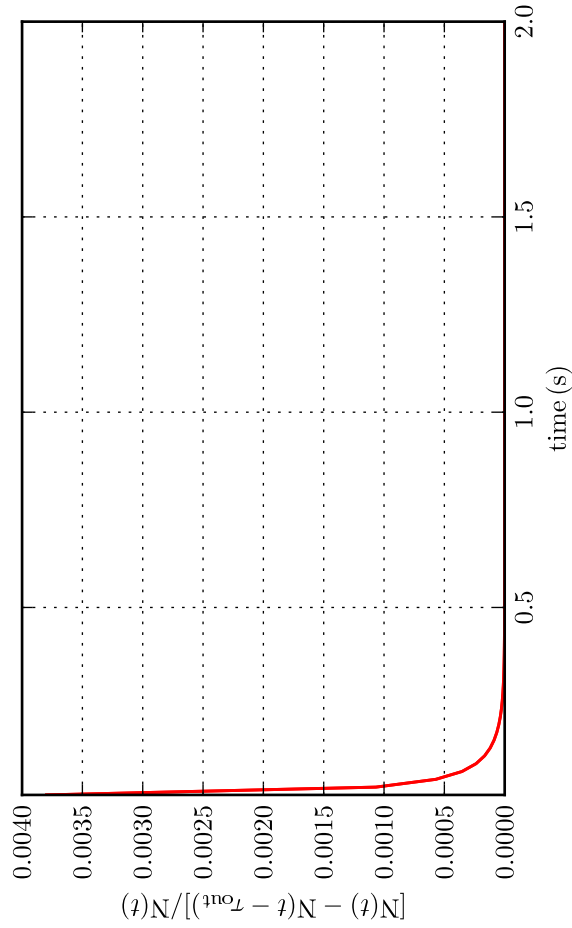
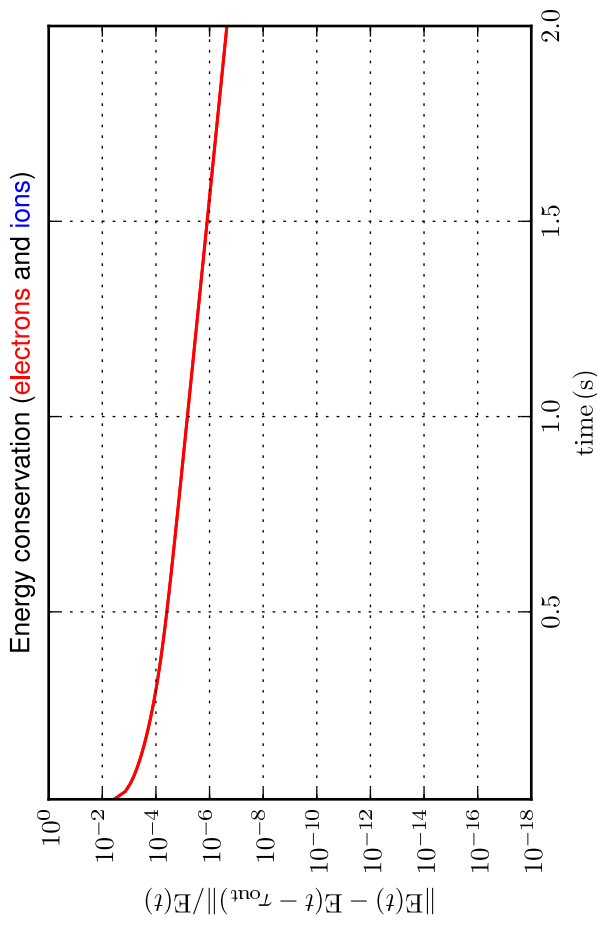
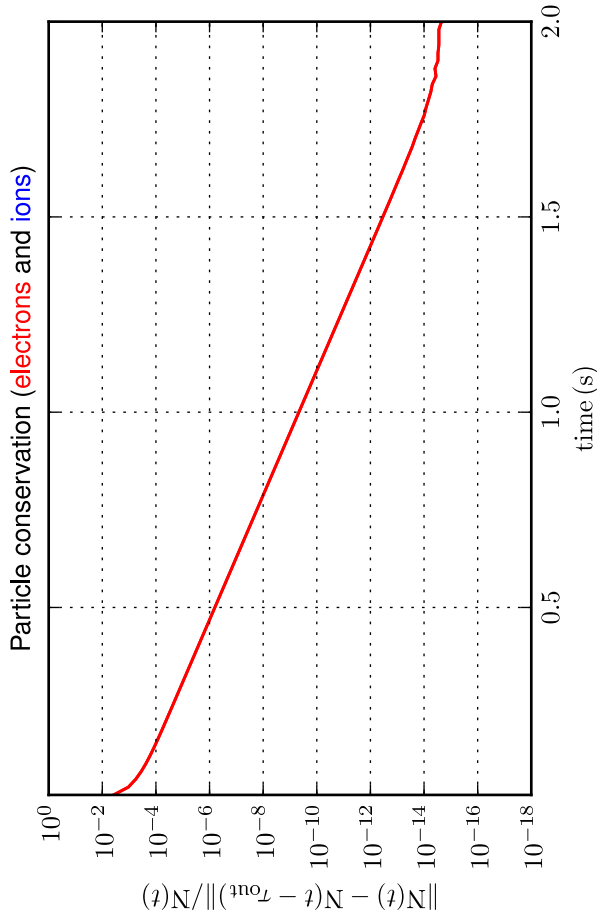
Comparison with initial solution - log scale; total time and zoom over time



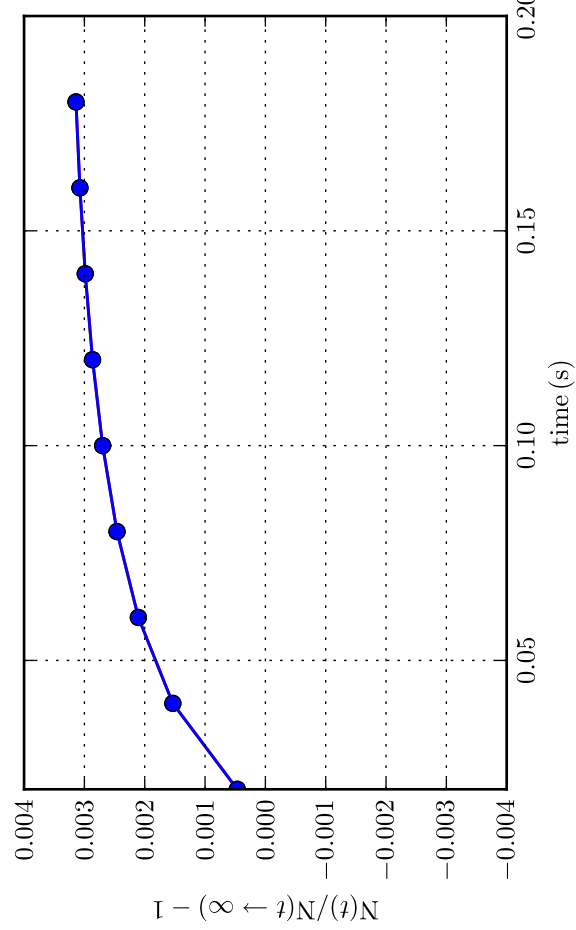
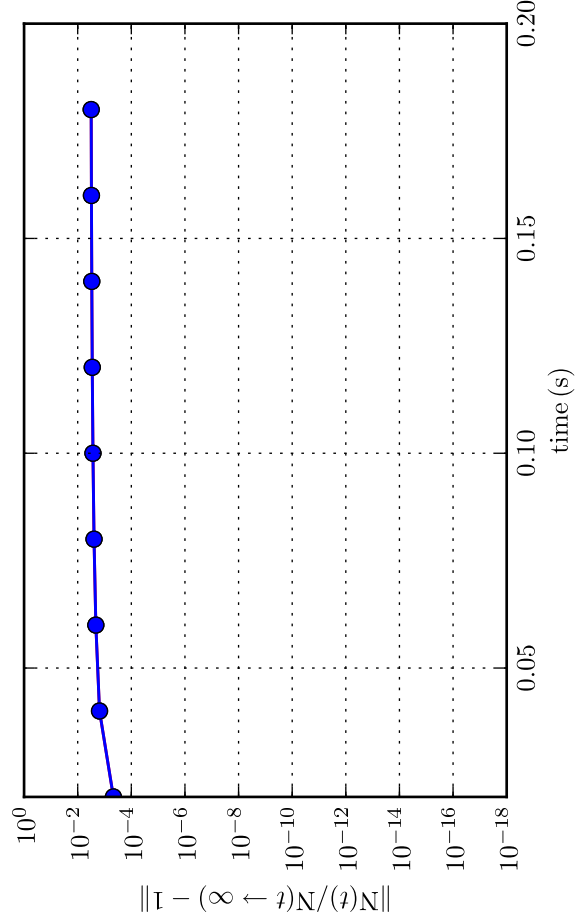
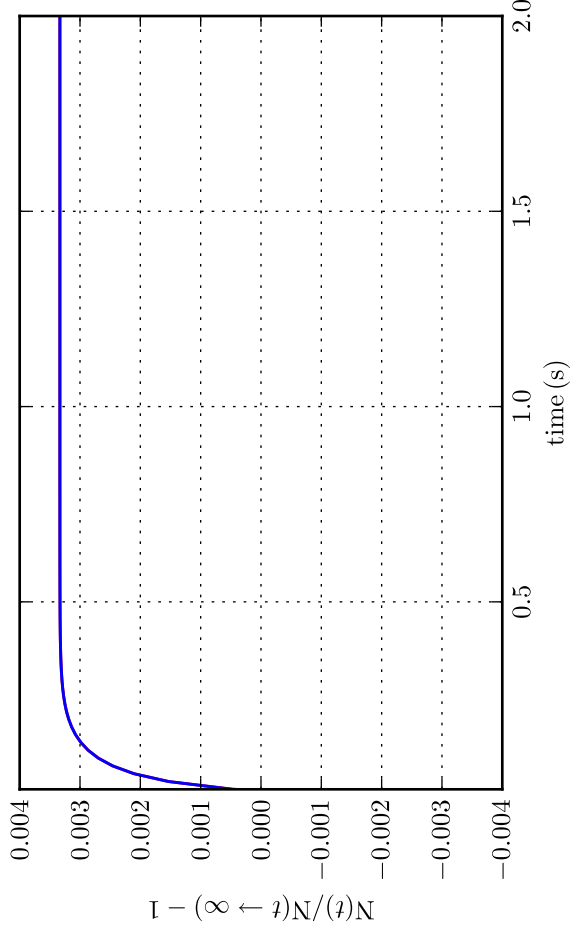
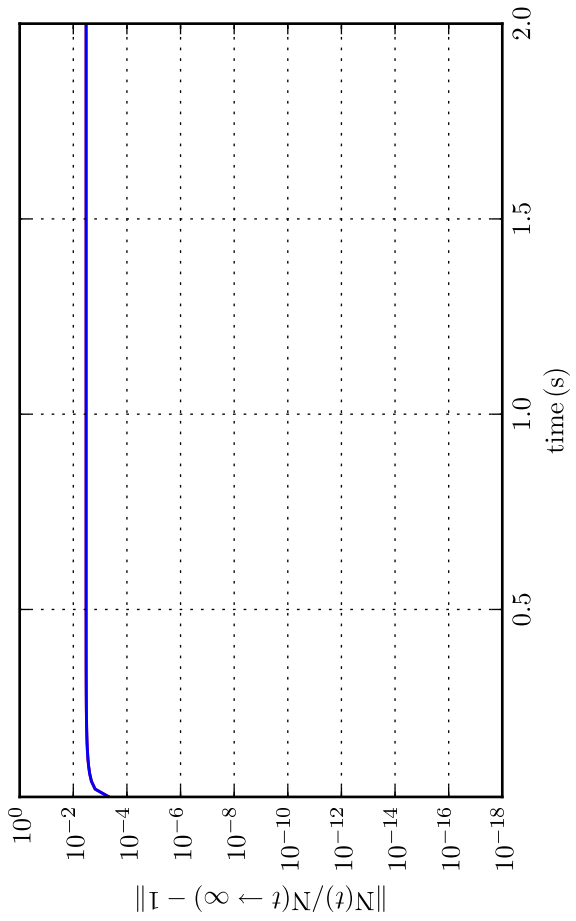
Part. & Energy conservation [Case: I.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_p = 101$]
Comparison with initial solution - linear scale; total time and zoom over time



Part. & Energy conservation [Case: I.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_p = 101$]
Comparison with previous time-sampled (τ_{out}) solution - log and linear scales

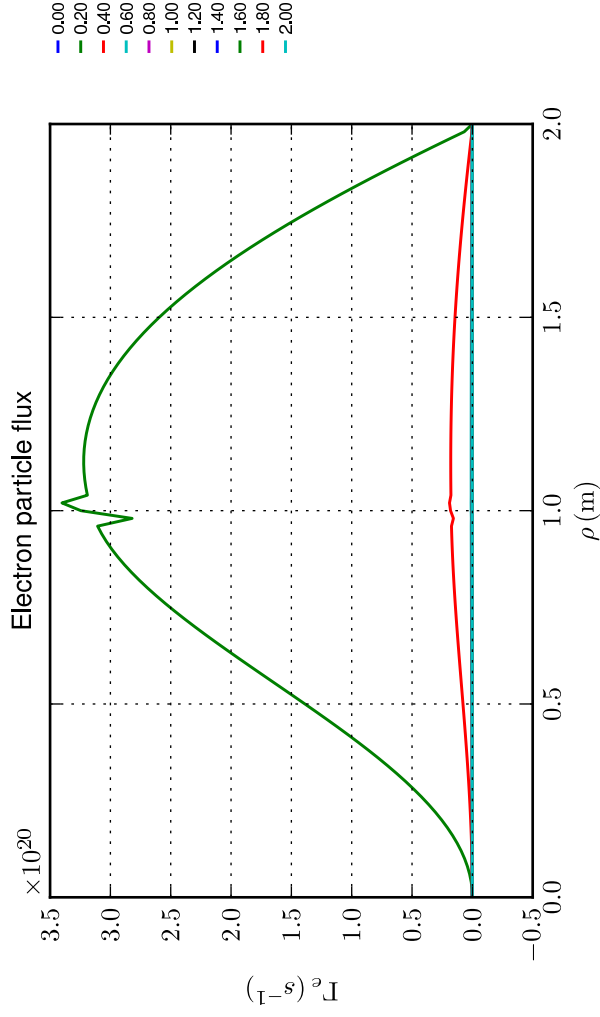
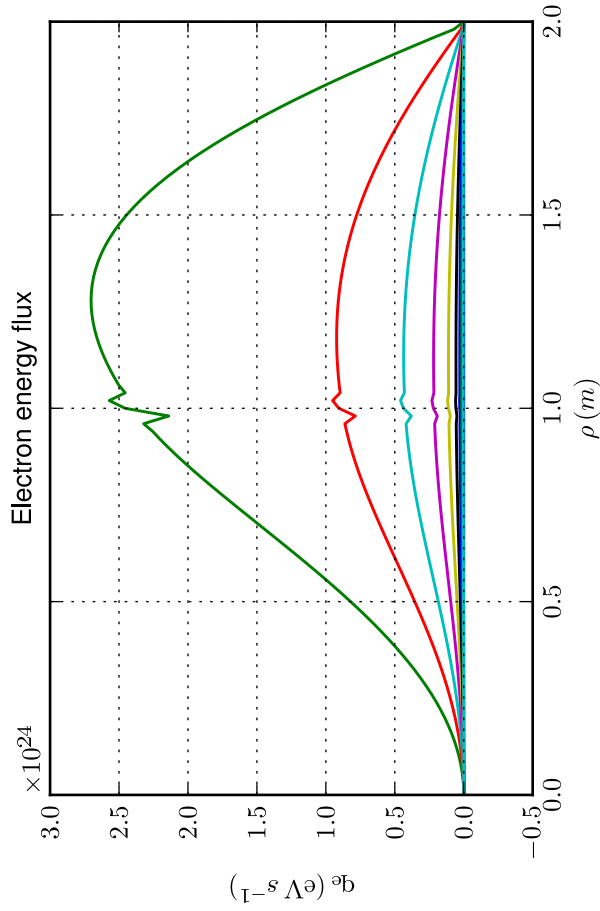
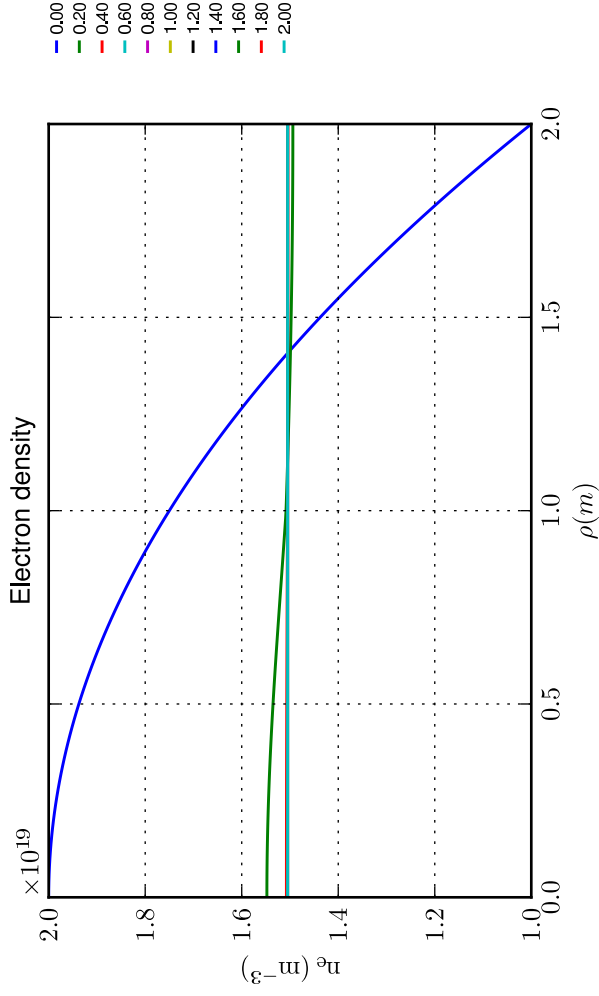
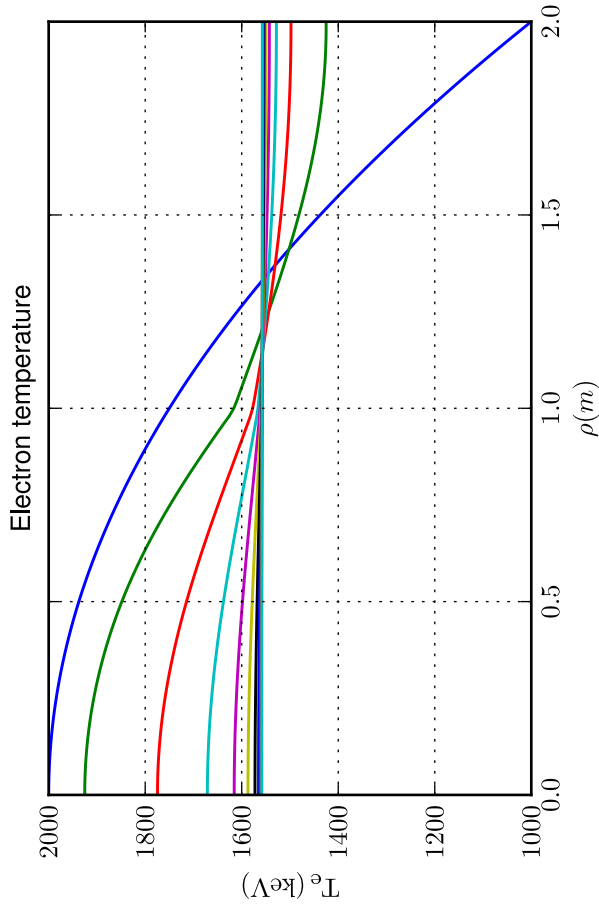


Particle conservation [Case: I.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_p = 101$]
 Comparison with asymptotic solution (electrons and ions); total time and zoom over time



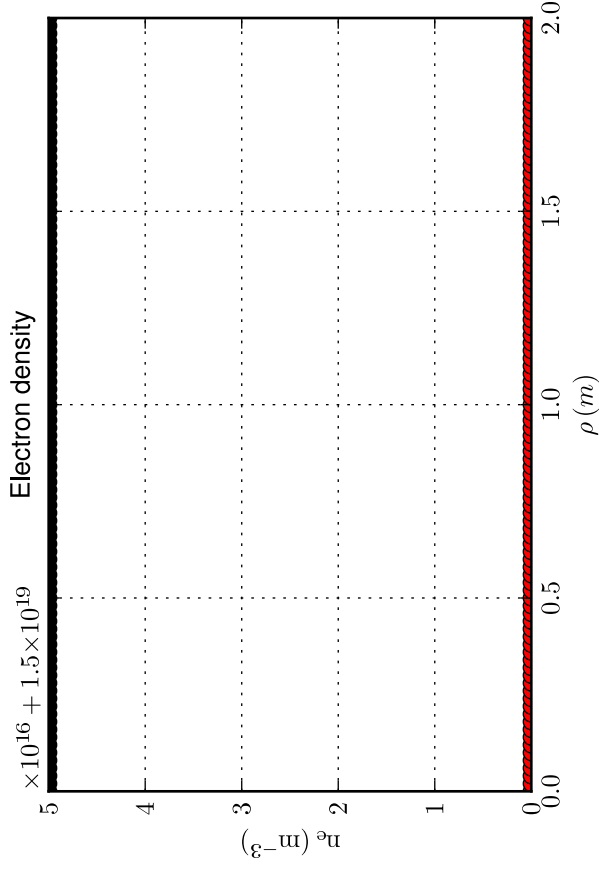
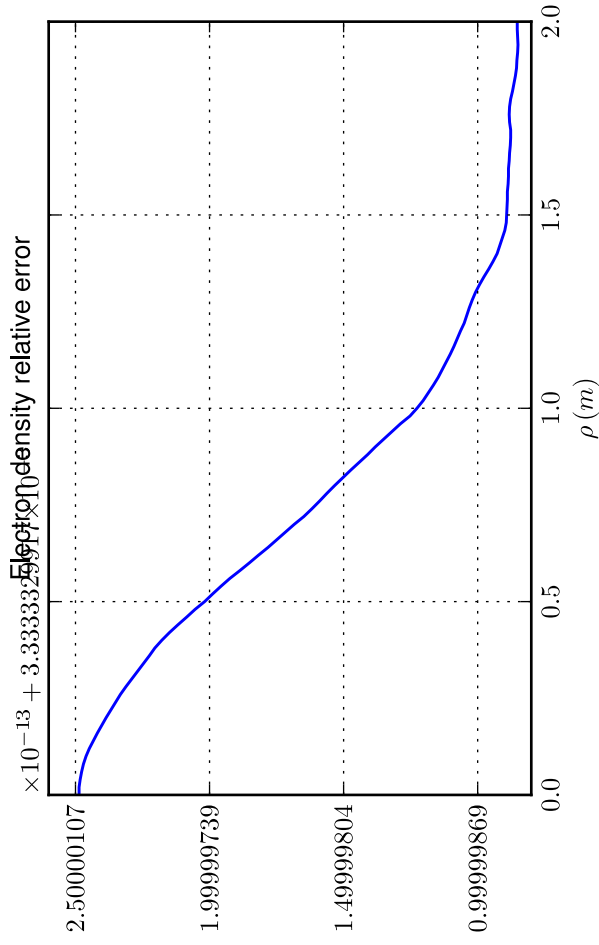
Profiles [Case: 1.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]

Time sampling: total simulation time/10

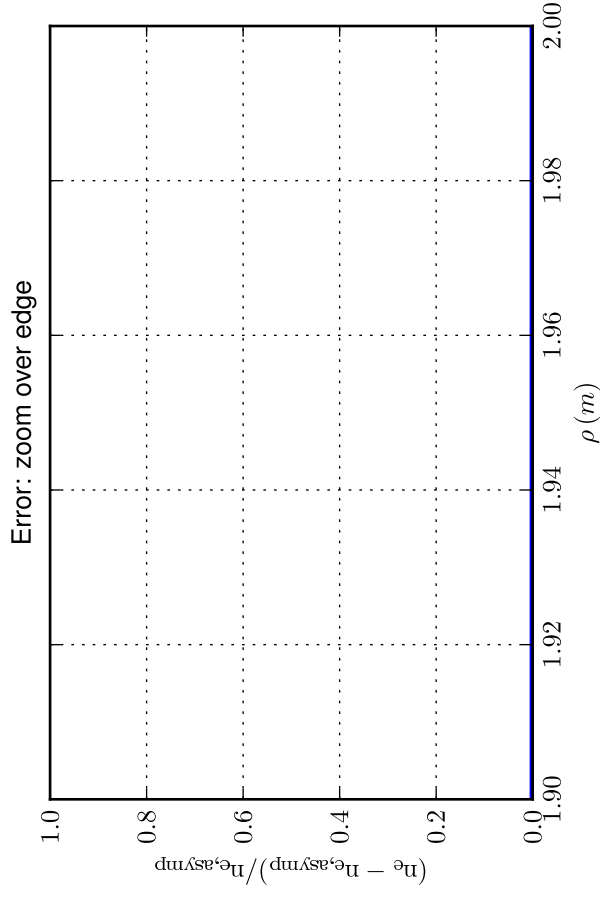
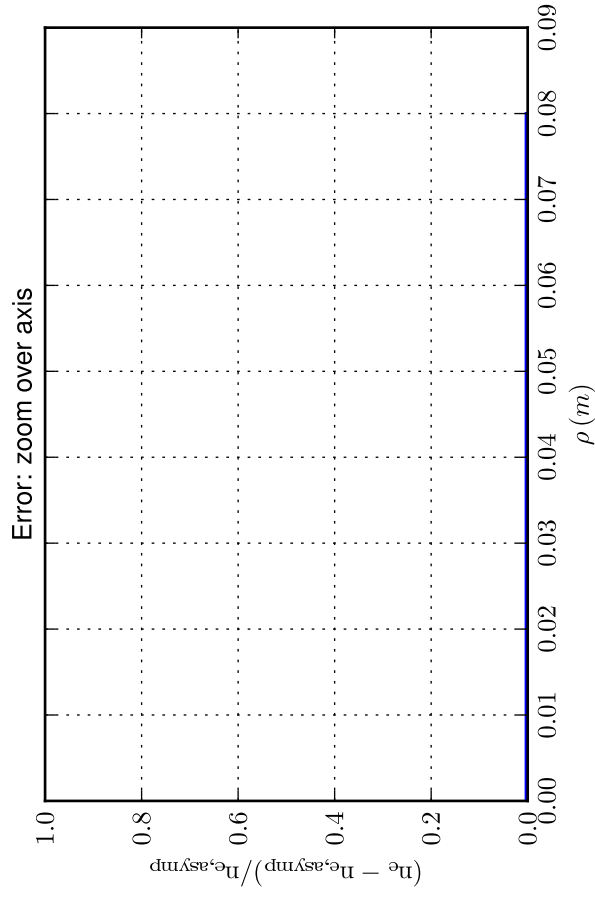


Profiles [Case: 1.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]

Comparison with asymptotic solution

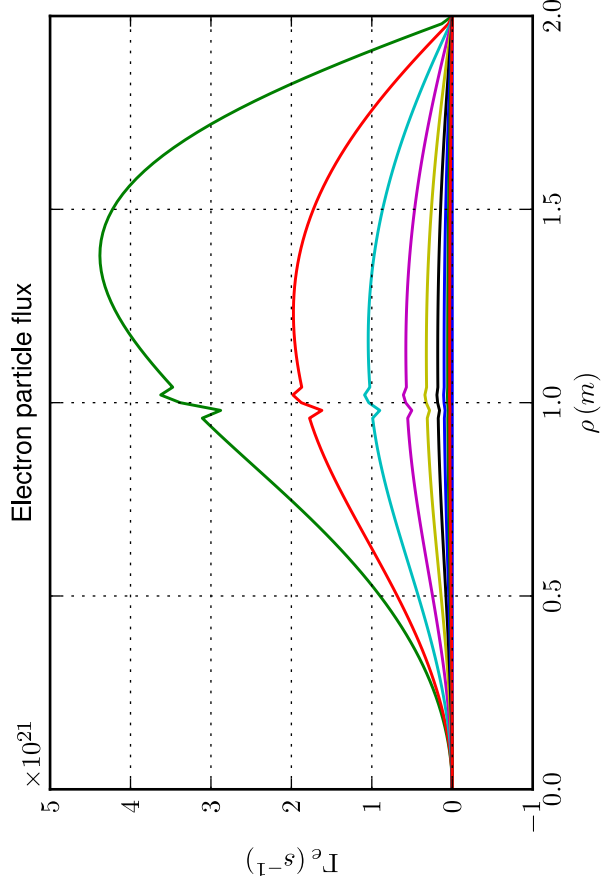
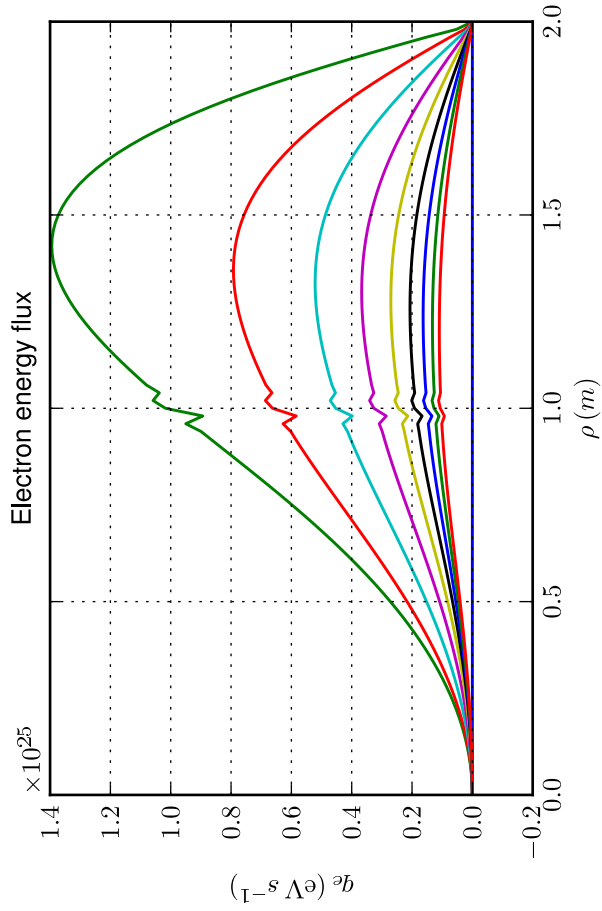
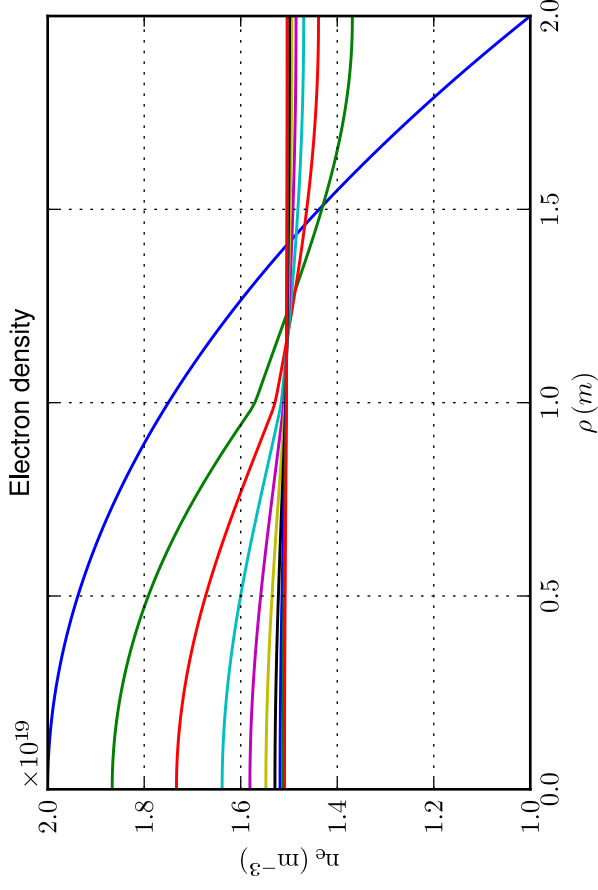
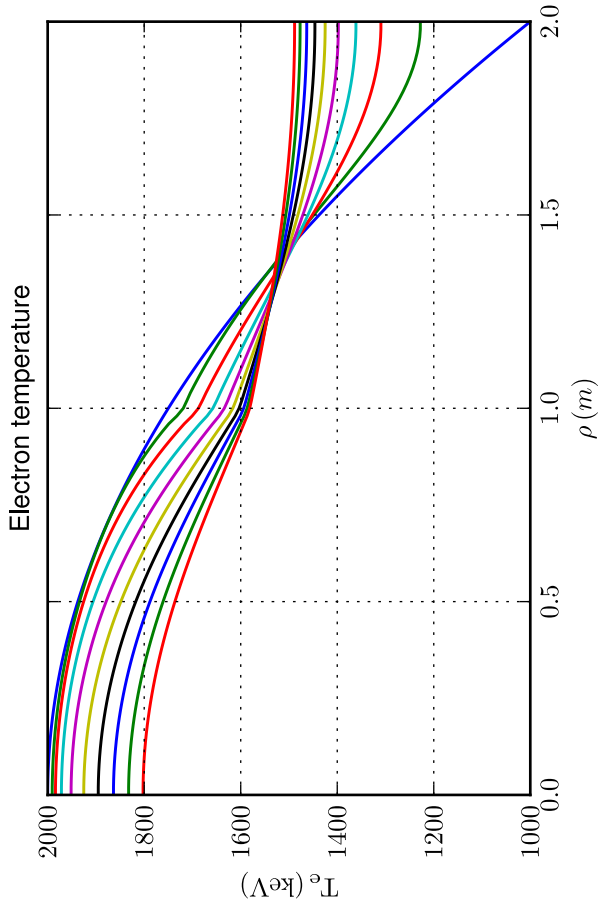


● final calculation
● asymptotic



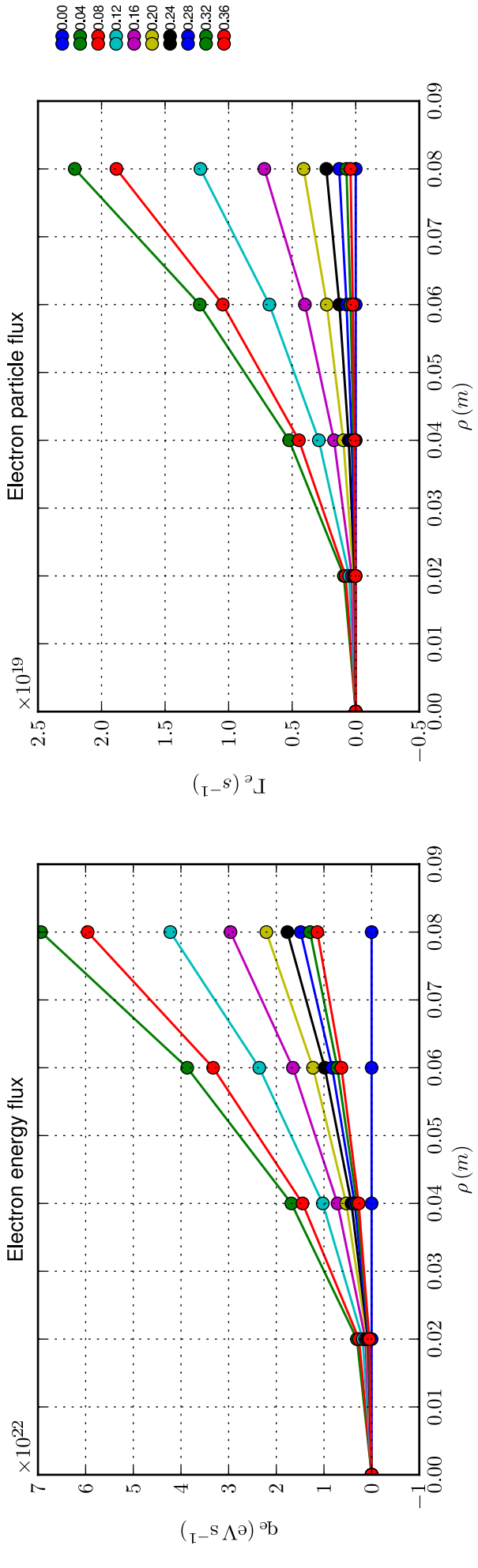
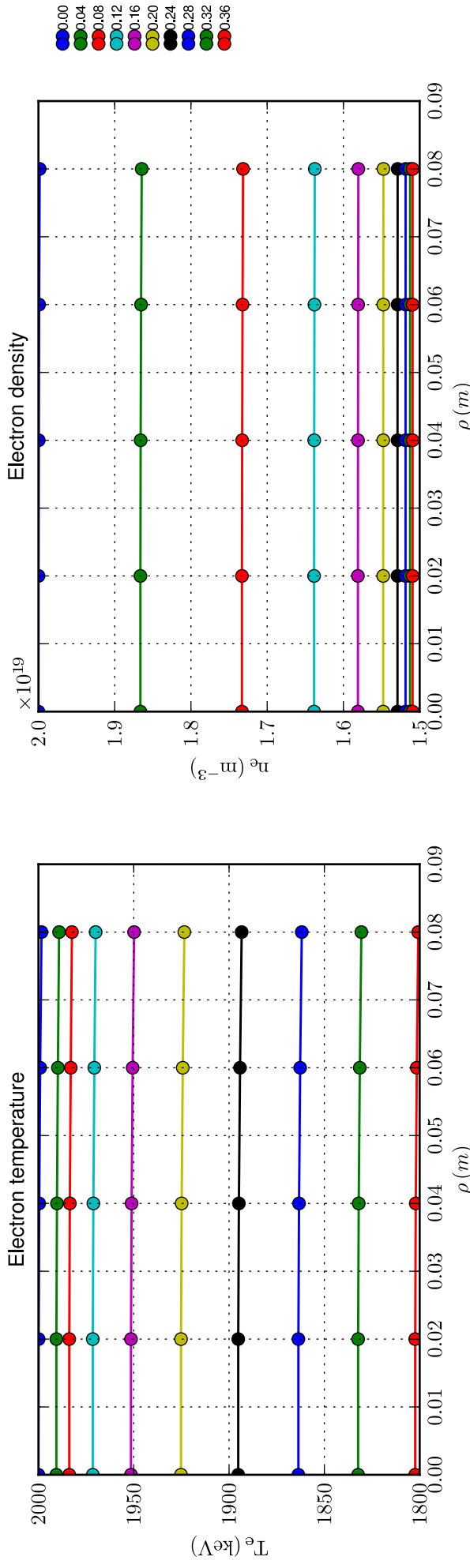
Profiles [Case: 1.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_p = 101$]

Time sampling: first 10 time slices or zoom over time $0.1 \times (a^2/D)/|1 - (Va/D)| = 0.40 \text{ s}$

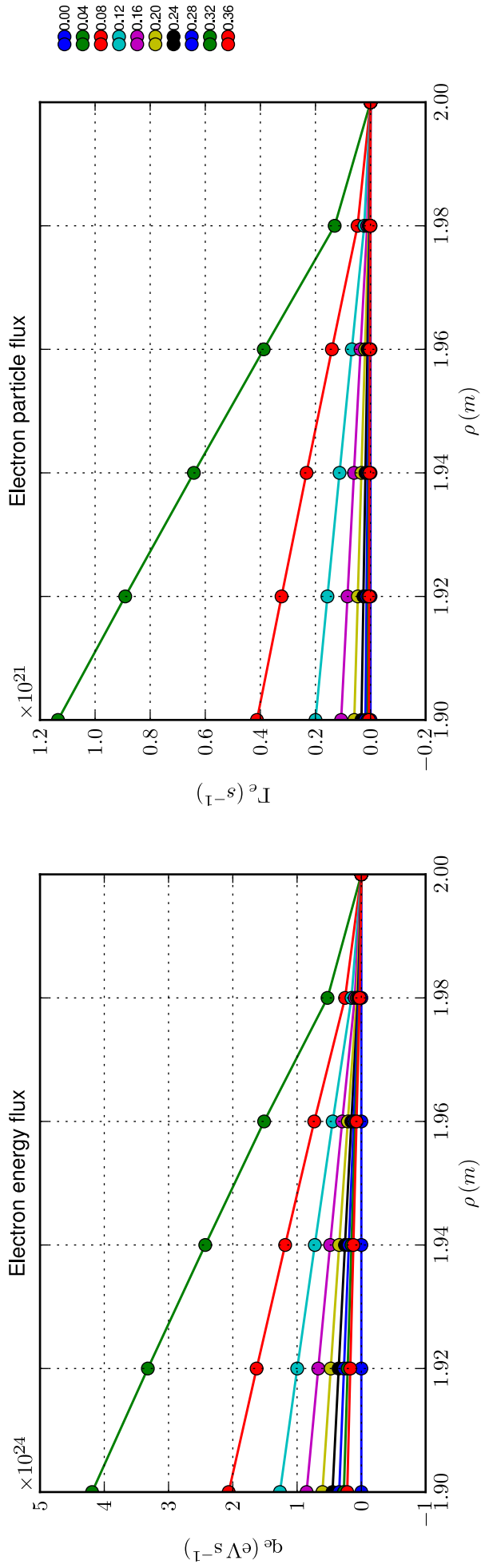
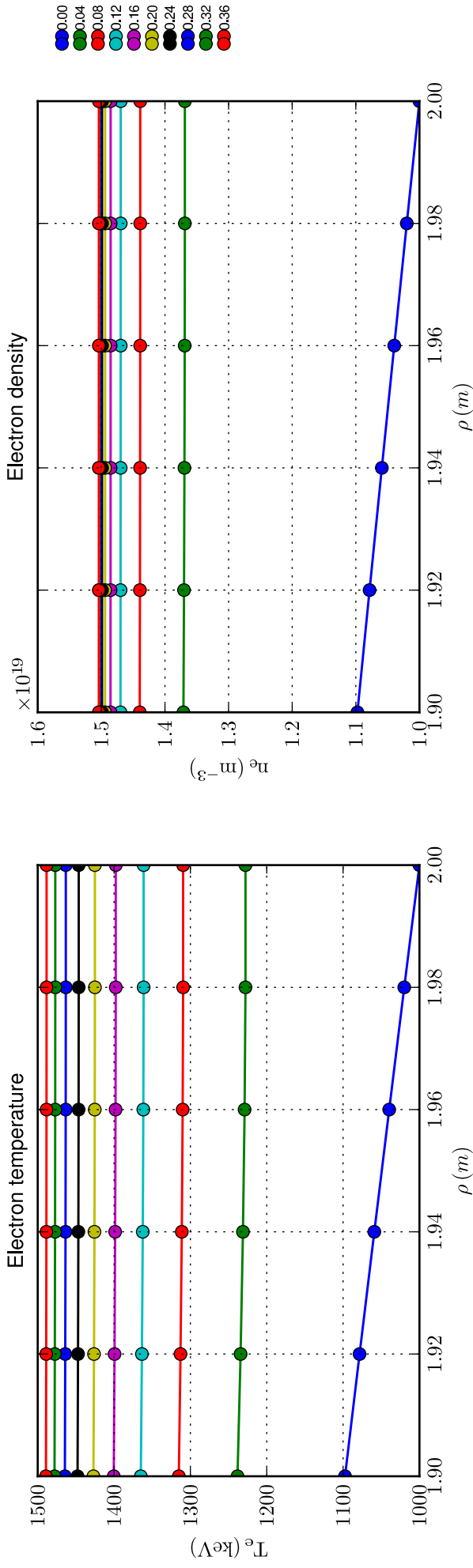


0.00
0.04
0.08
0.12
0.16
0.20
0.24
0.28
0.32
0.36

Profiles [Case: 1.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]
 Spatial zoom over magnetic axis; time sampling: first 10 time slices or zoom over time $0.1 \times (a^2/D)/|1 - (Va/D)| = 0.40 \text{ s}$

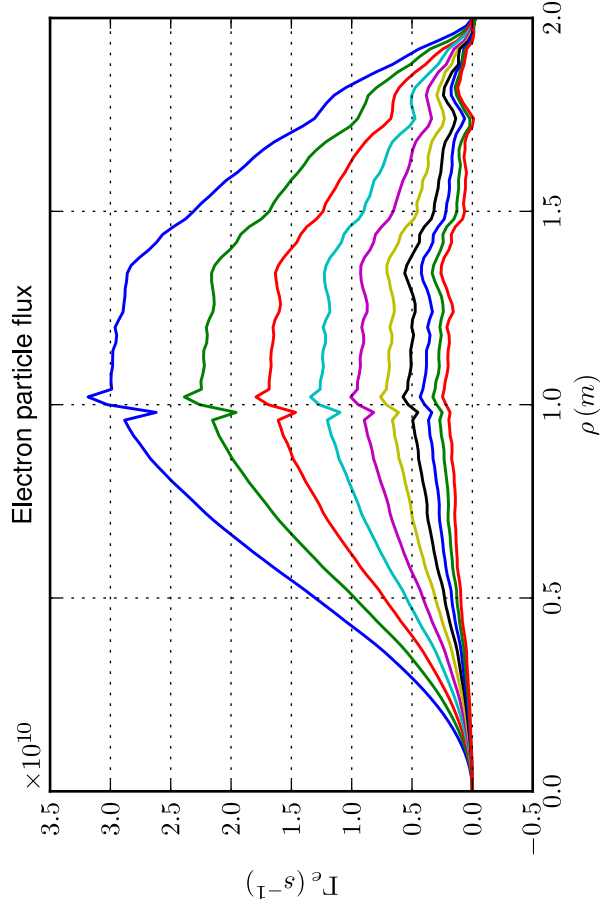
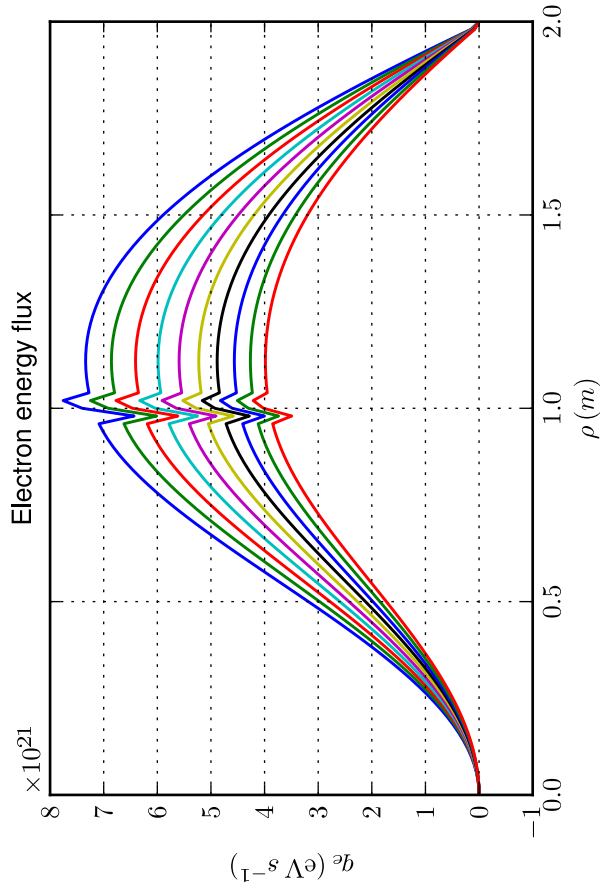
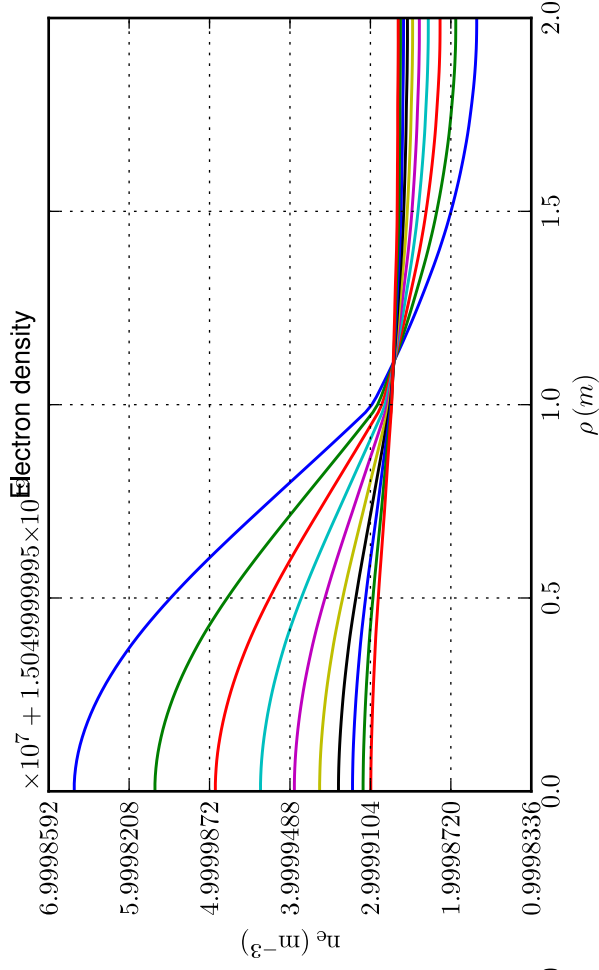
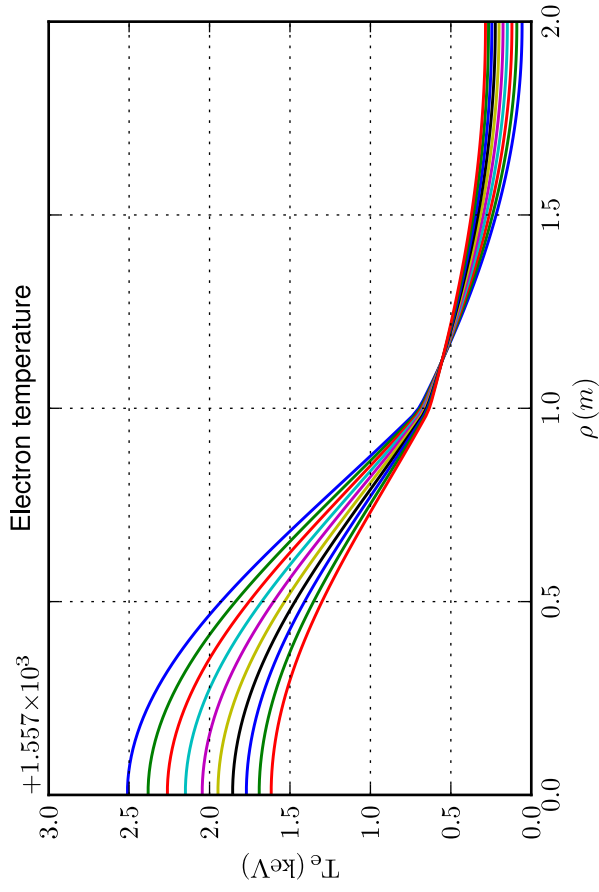


Profiles [Case: 1.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]
 Spatial zoom over edge; time sampling: first 10 time slices or zoom over time $0.1 \times (a^2/D)/|1 - (V_a/D)| = 0.40 \text{ s}$



Profiles [Case: 1.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]

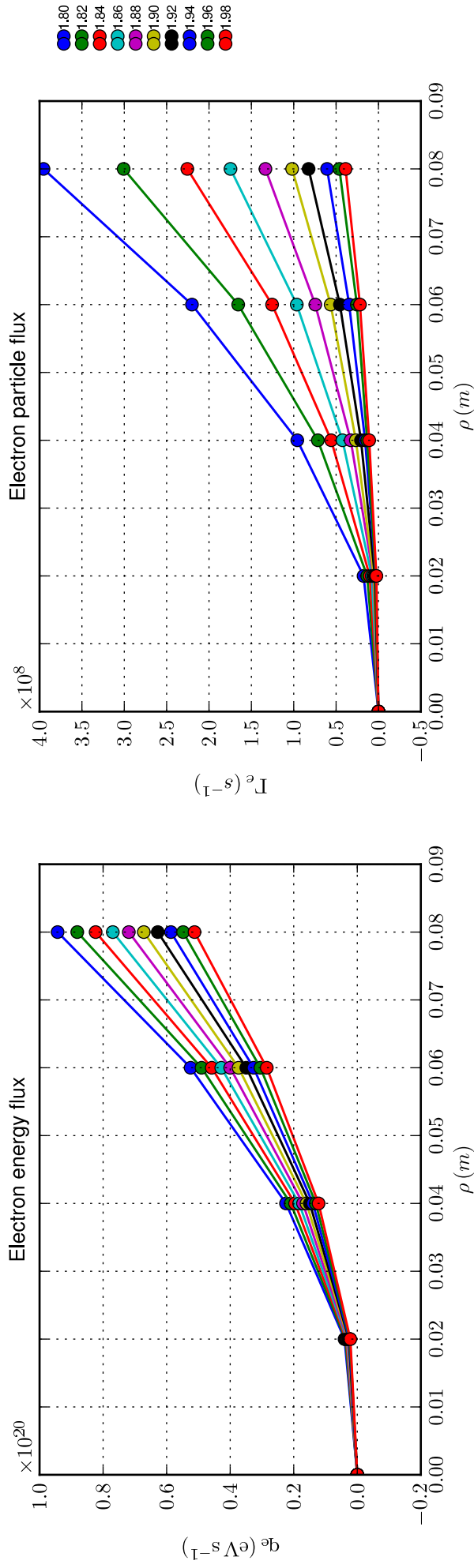
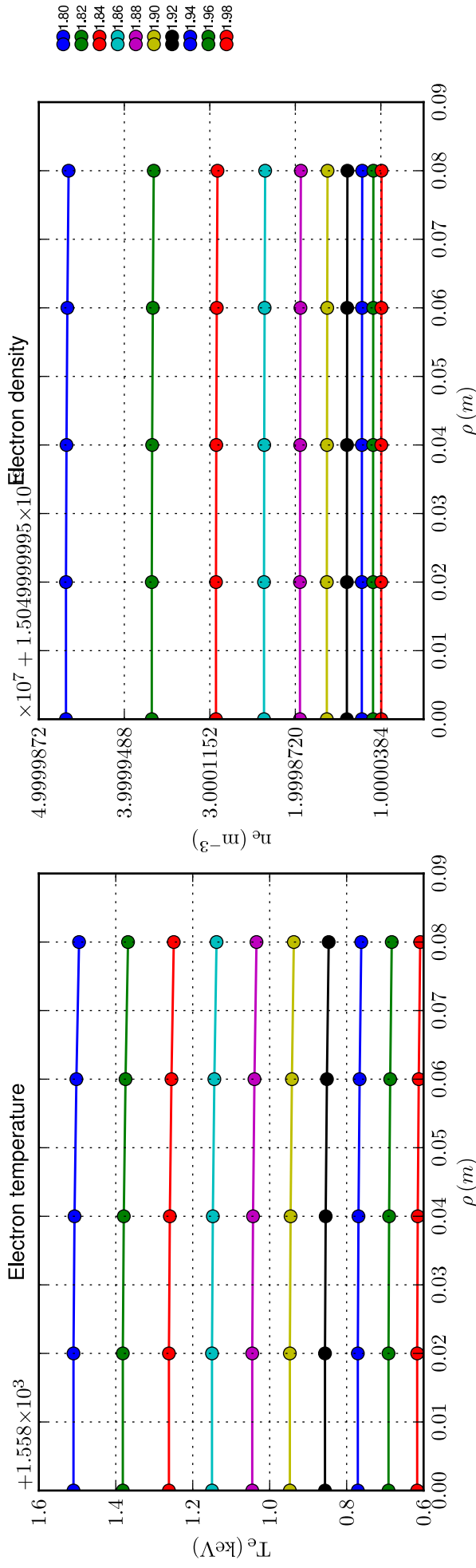
Time sampling: last 10 time slices



1.80
1.82
1.84
1.86
1.88
1.90
1.92
1.94
1.96
1.98

Profiles [Case: 1.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]

Spatial zoom over magnetic axis; time sampling: last 10 time slices



Profiles [Case: 1.1.4, Solver: 3, $D = 1.0 \text{ m}^2/\text{s}$, $v = 0.00 \text{ m/s}$, $\Delta t = 2.01$, $\tau = 1.0 \times 10^{-2} \text{ s}$, $N_\rho = 101$]
 Spatial zoom over edge; time sampling: last 10 time slices

