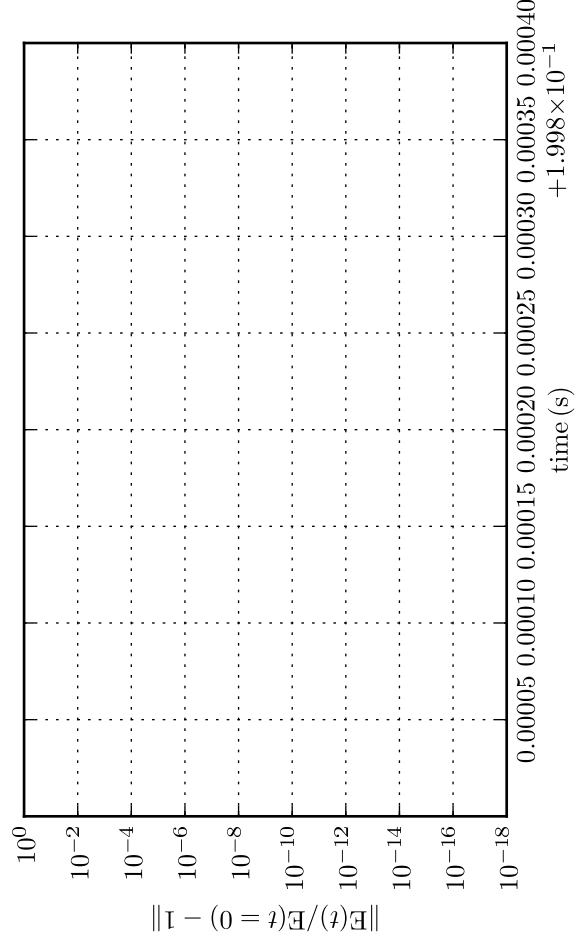
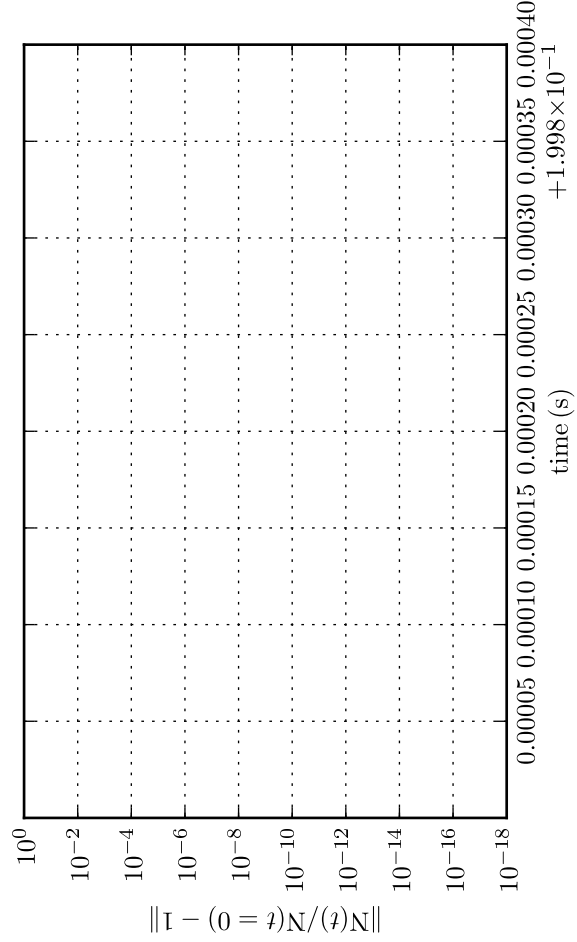
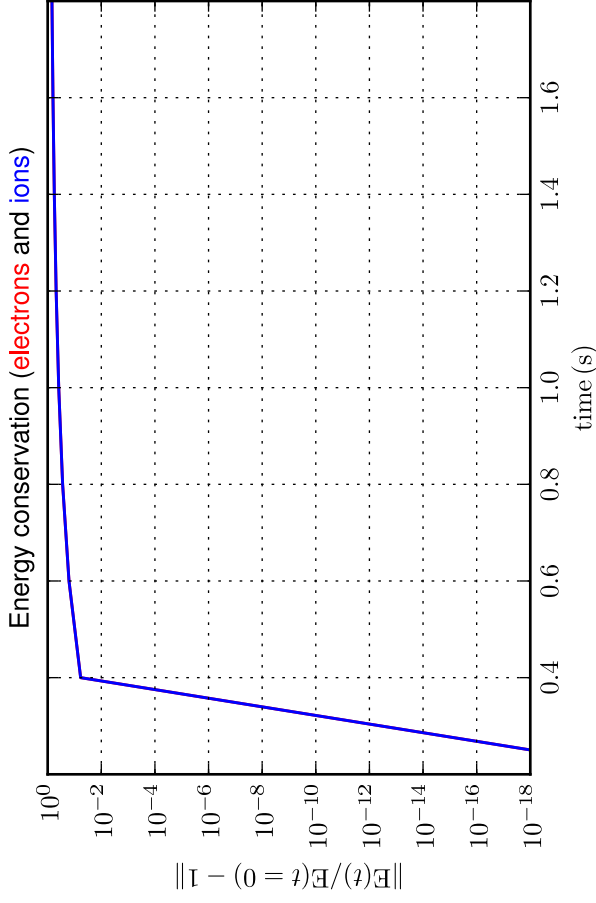
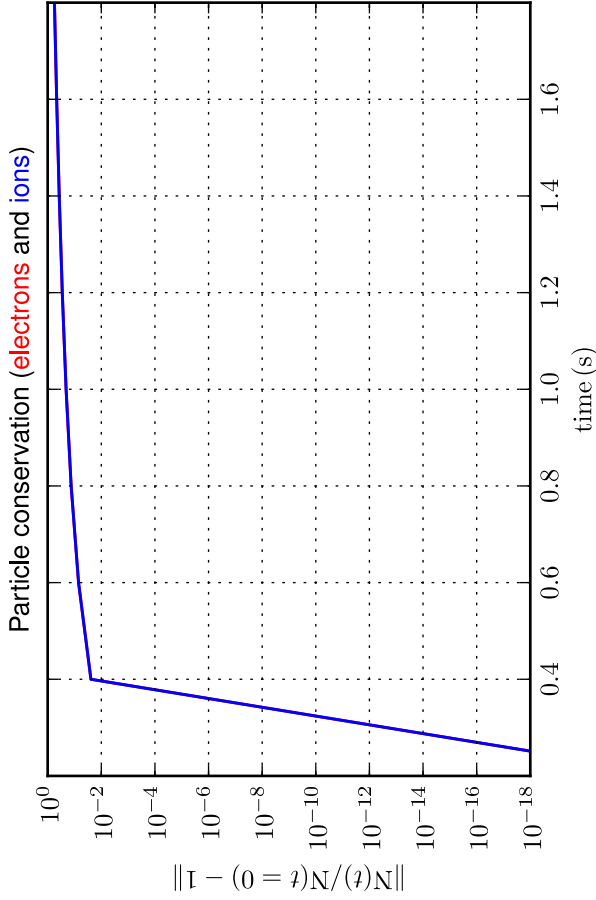
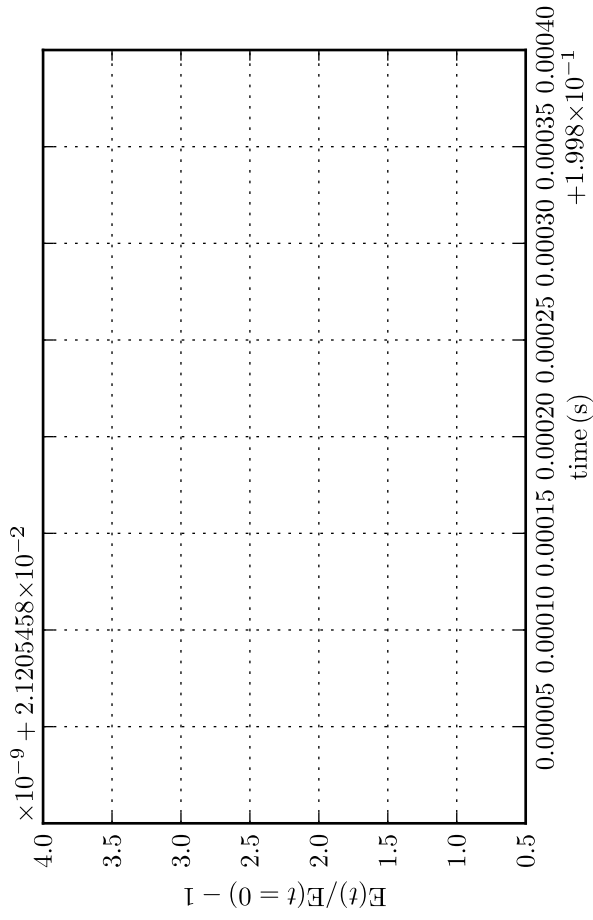
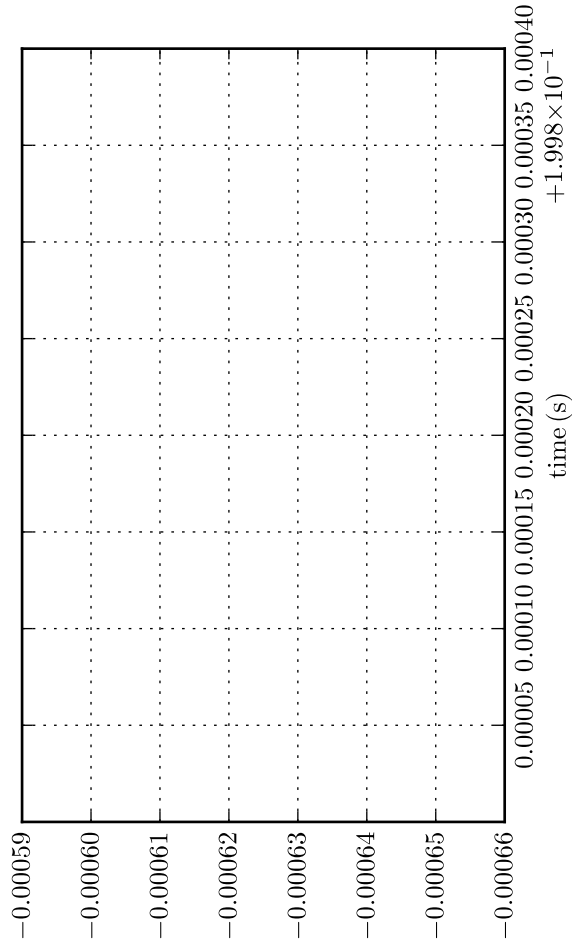
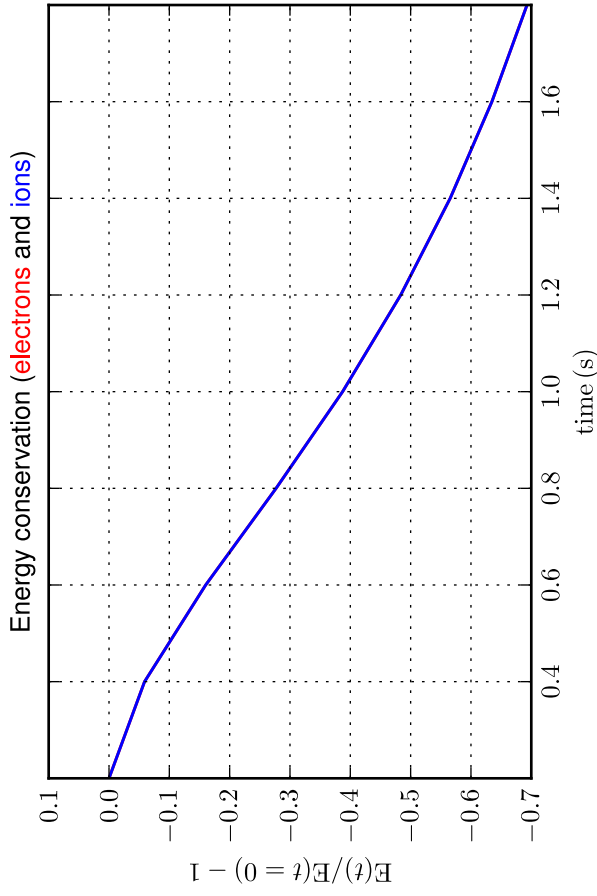
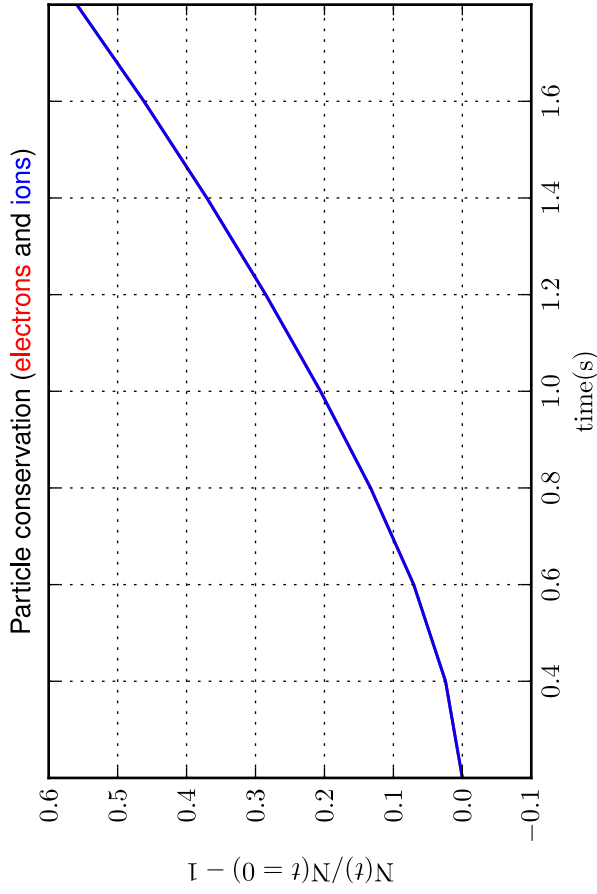


Part. & Energy conservation [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_p = 101$]
 Comparison with initial solution - log scale; total time and zoom over time

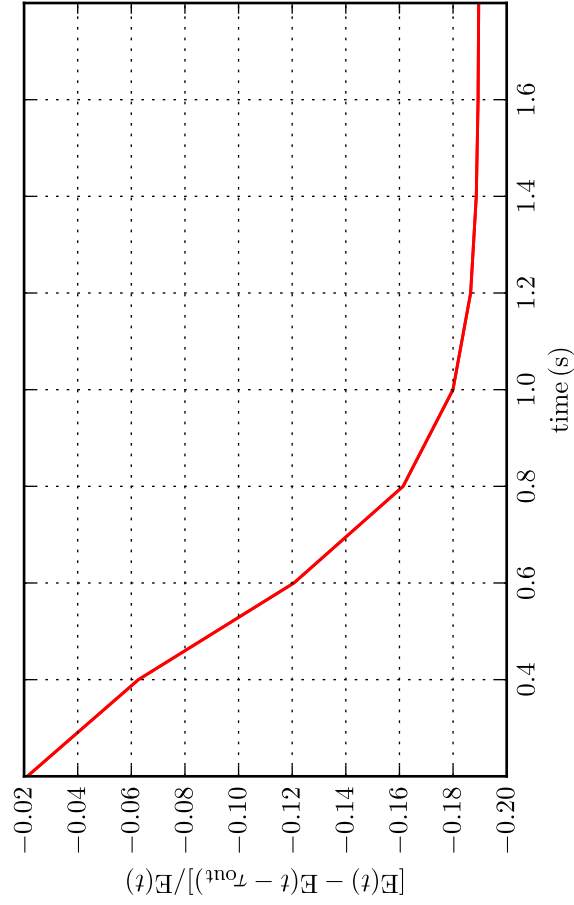
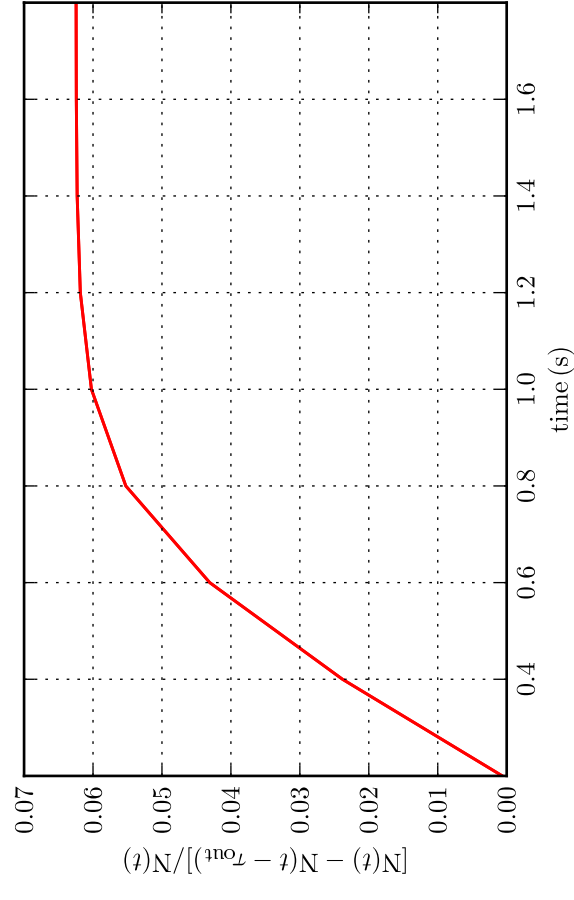
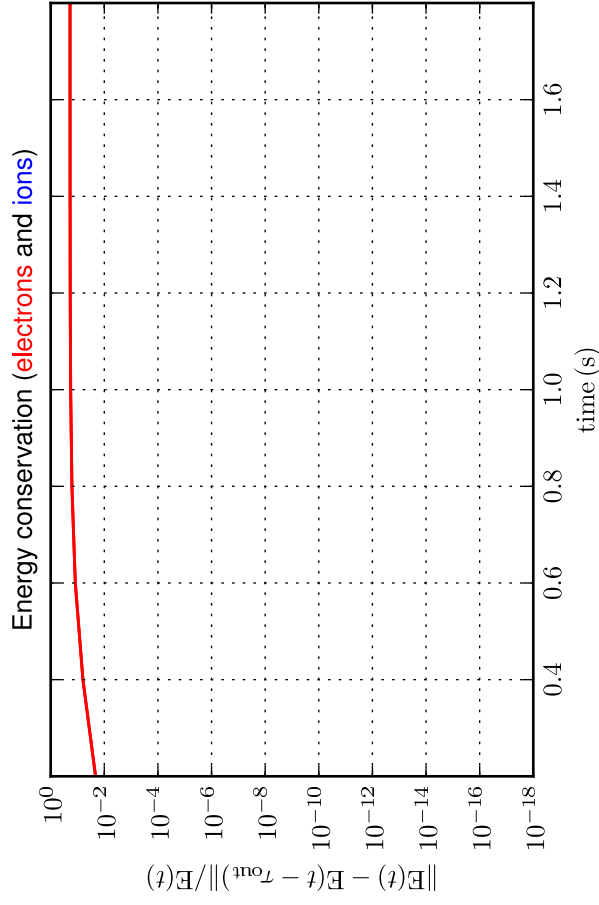
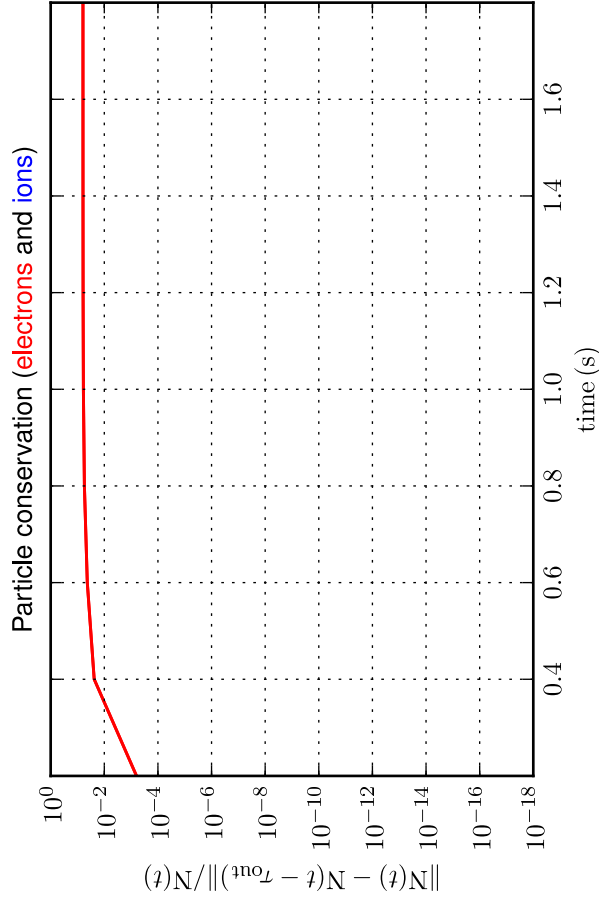


Part. & Energy conservation [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_p = 101$]

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

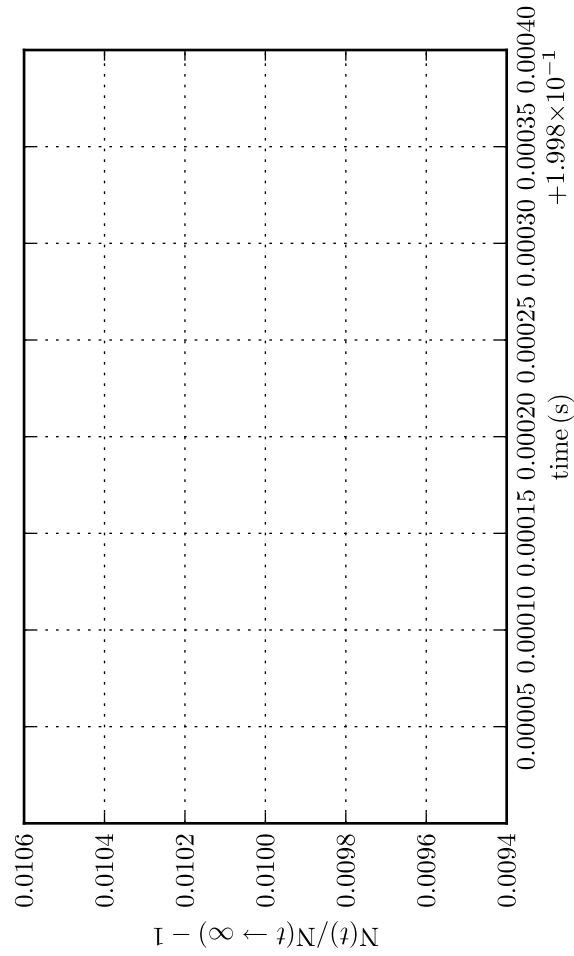
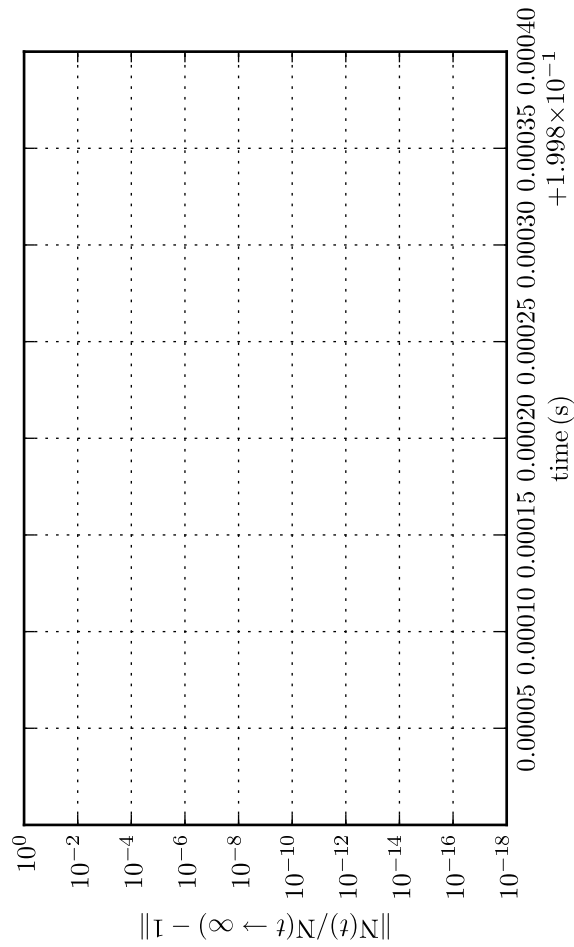
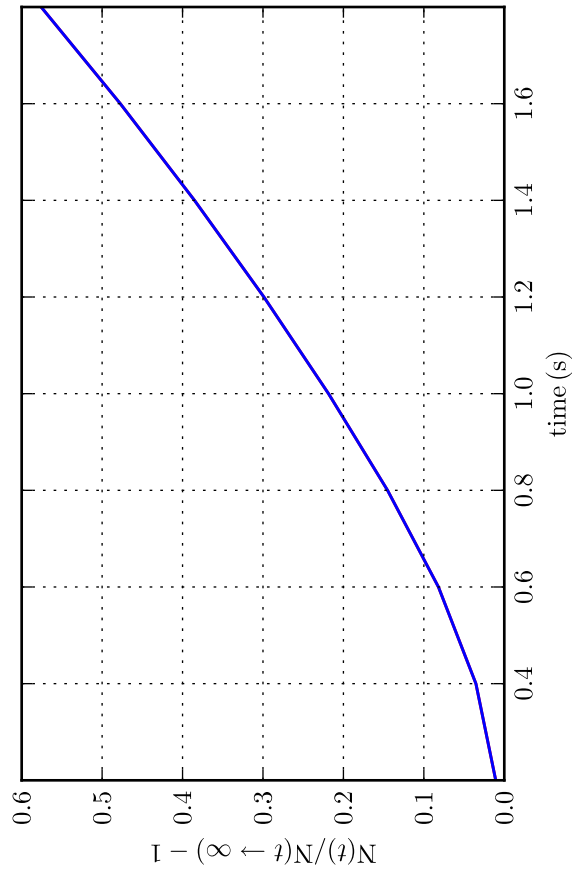
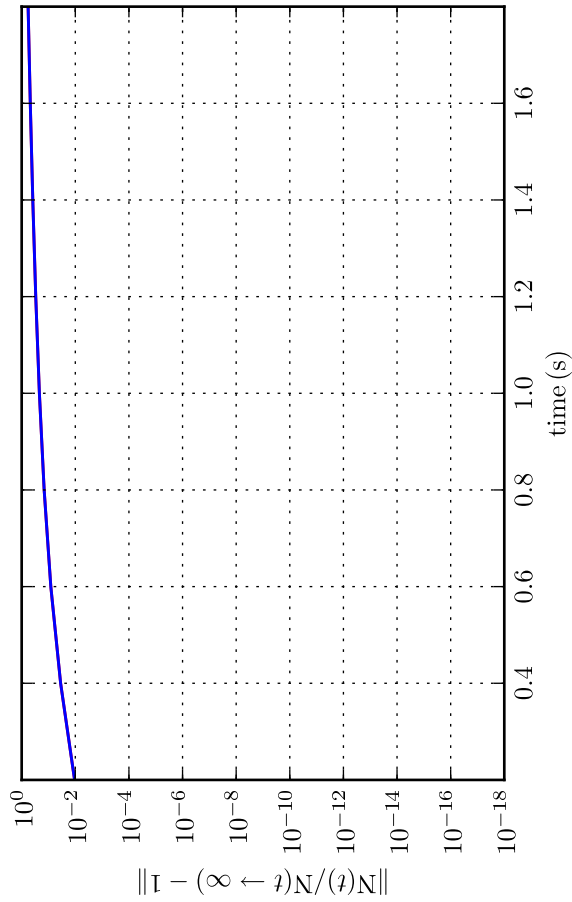


Part. & Energy conservation [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_p = 101$]
Comparison with previous time-sampled (τ_{out}) solution - log and linear scales



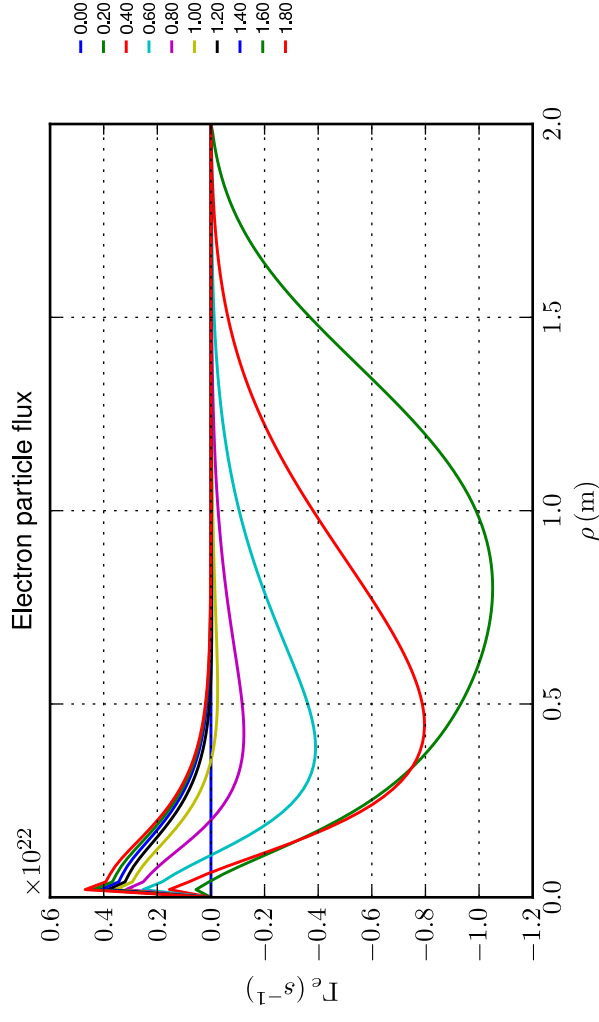
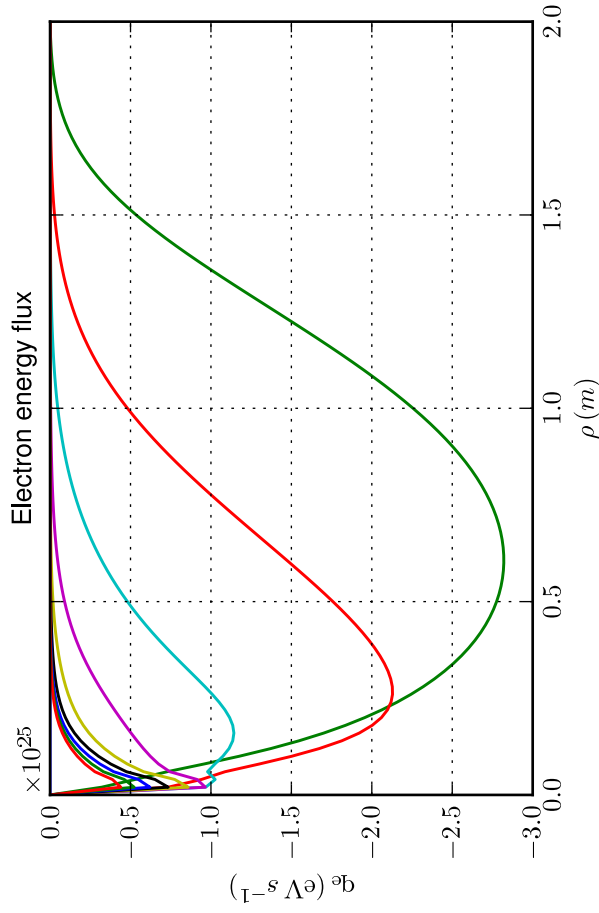
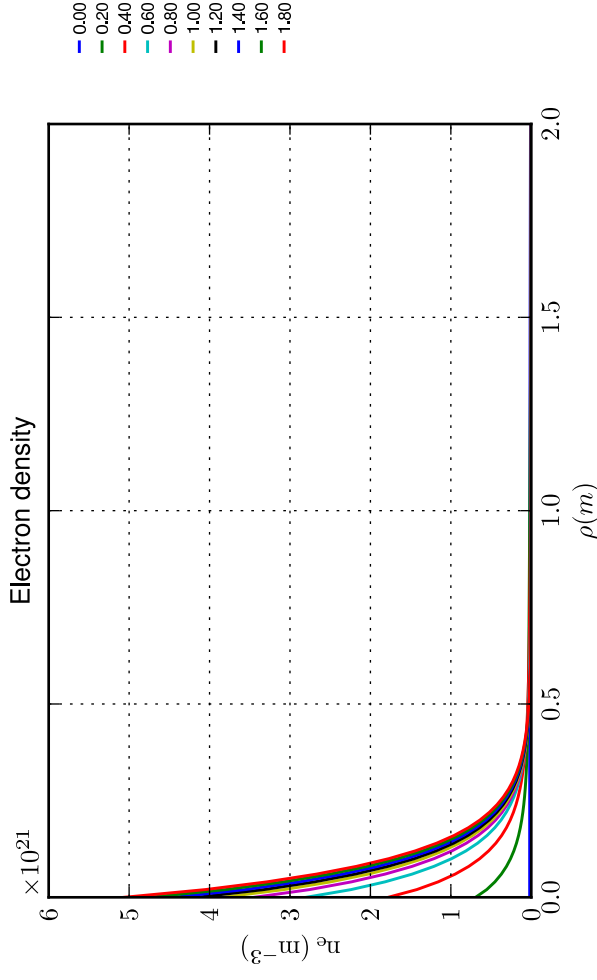
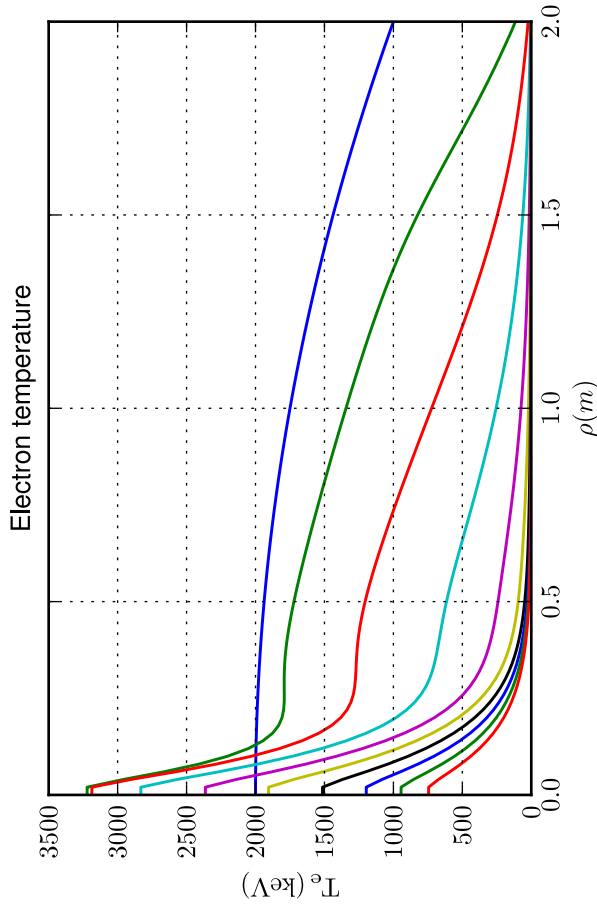
Particle conservation [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_p = 101$]

Comparison with asymptotic solution (electrons and ions); total time and zoom over time



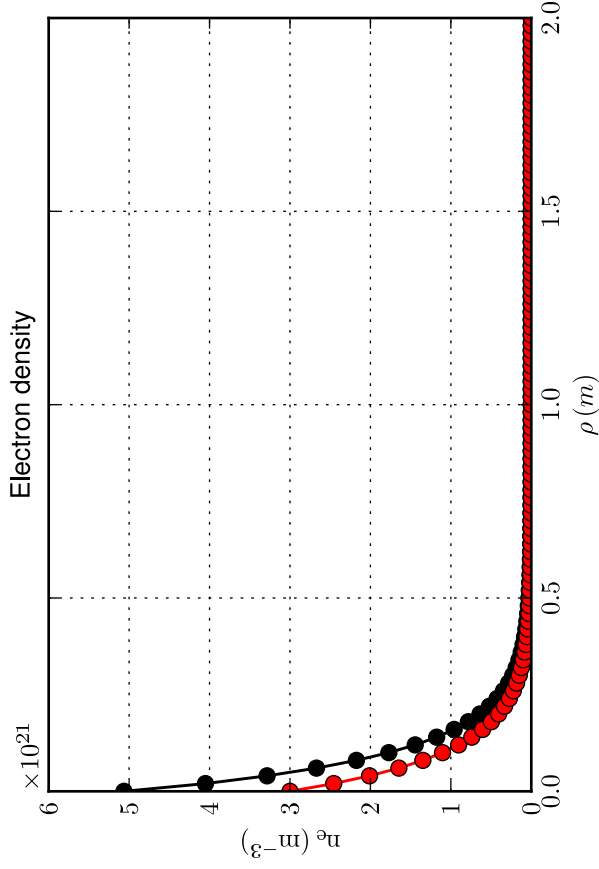
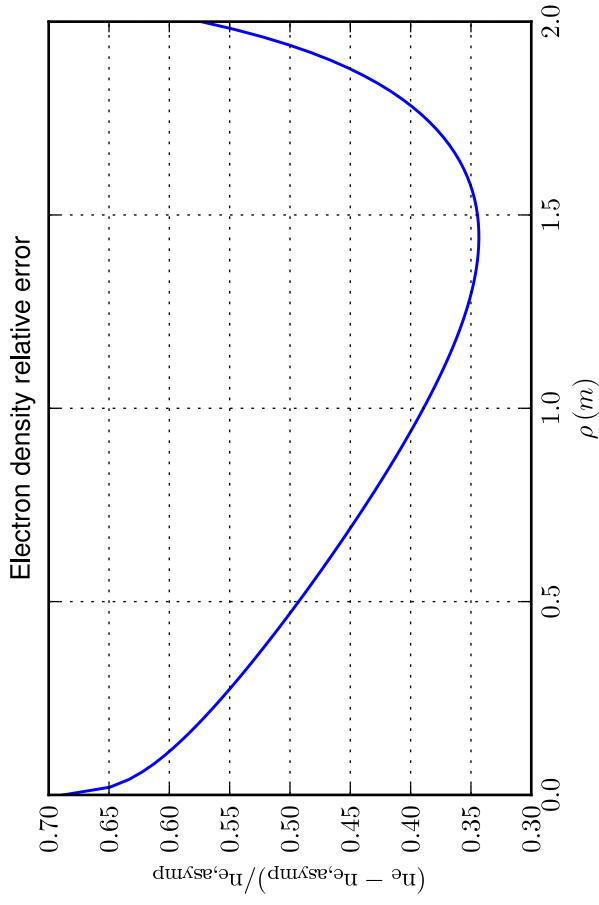
Profiles [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_\rho = 101$]

Time sampling: total simulation time/10

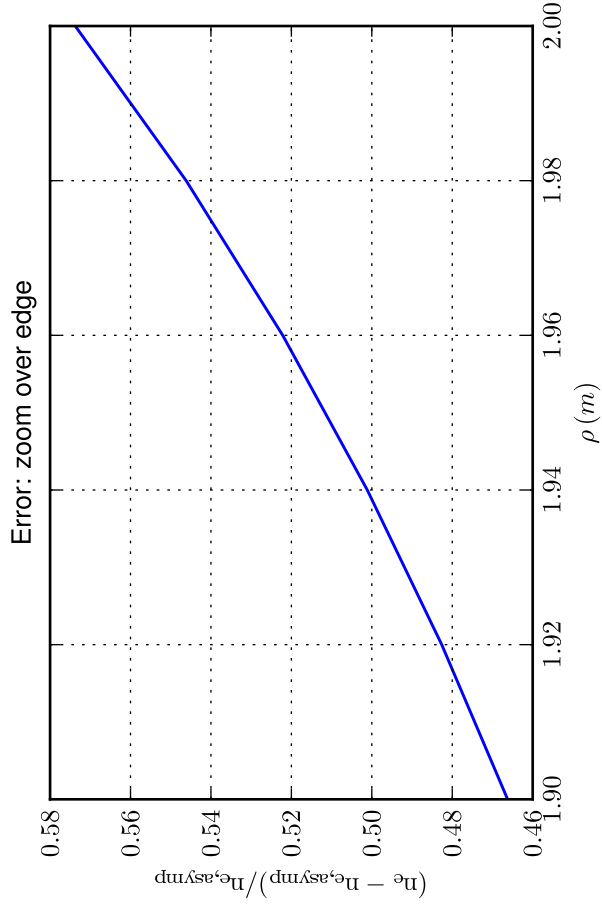
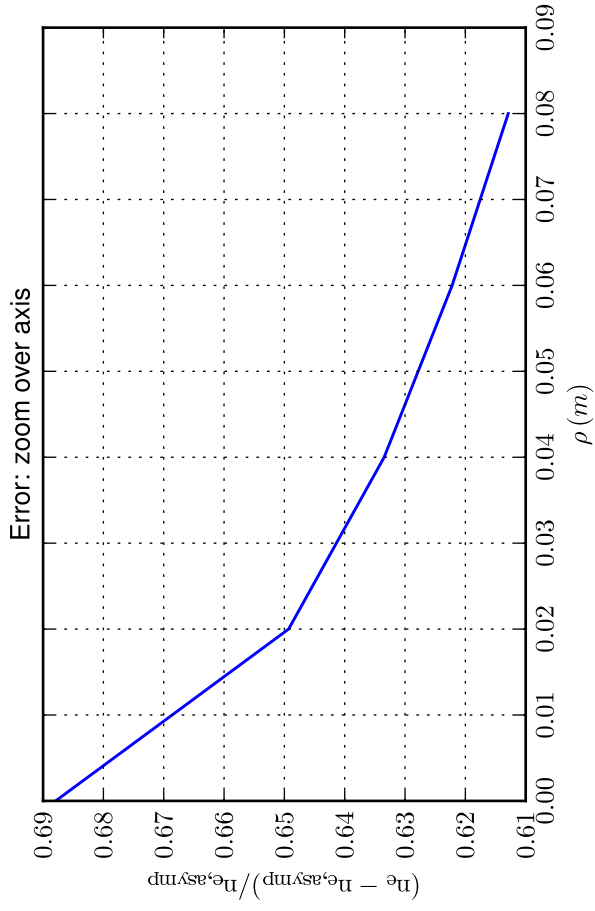


Profiles [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_\rho = 101$]

Comparison with asymptotic solution

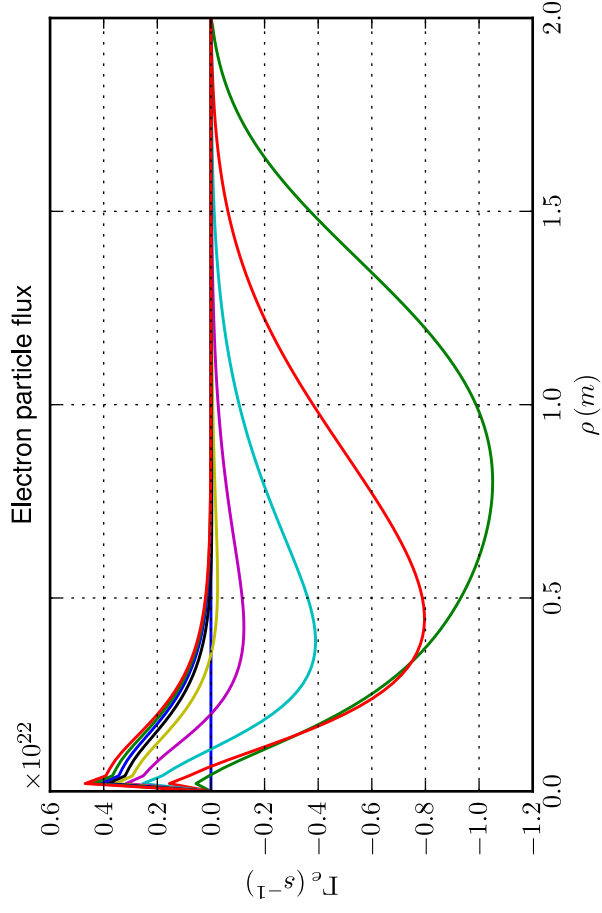
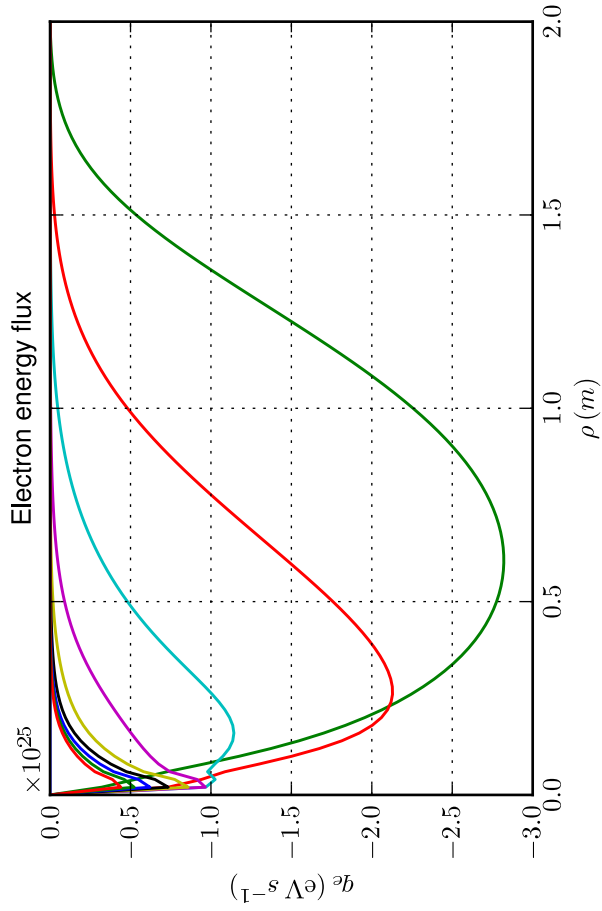
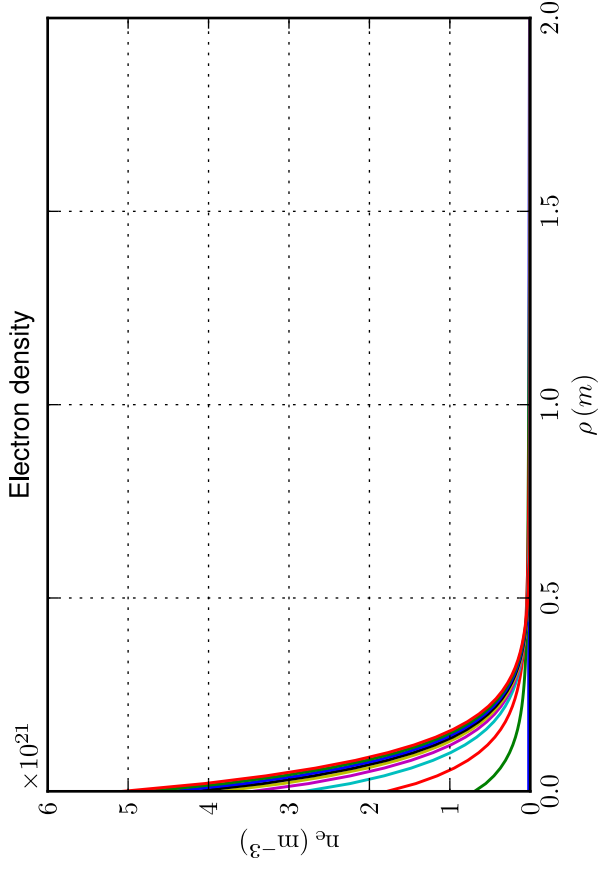
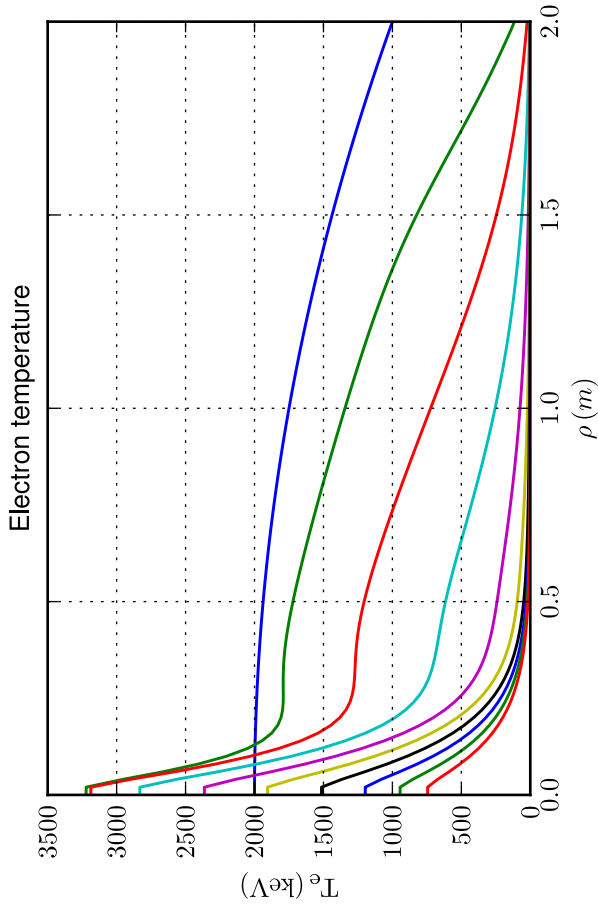


● final calculation
● asymptotic



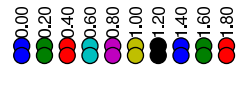
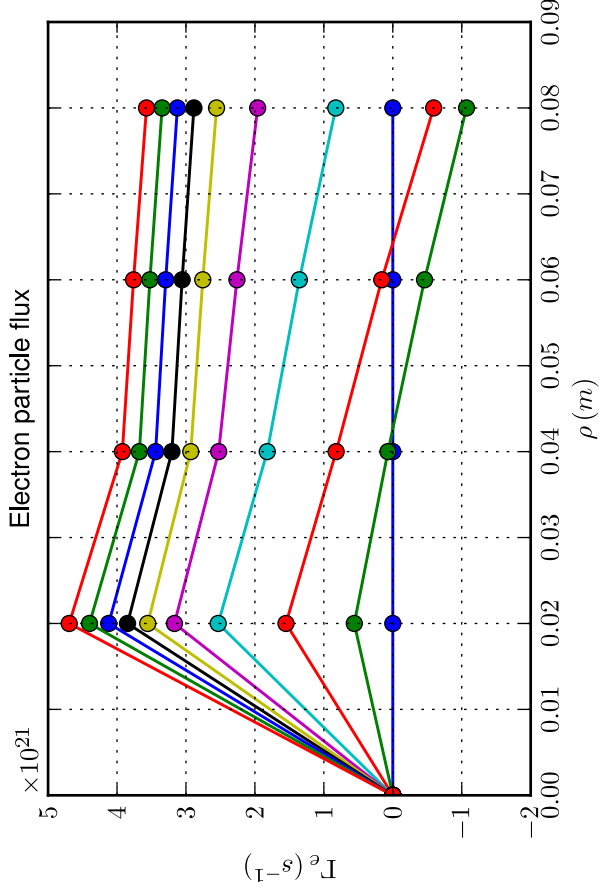
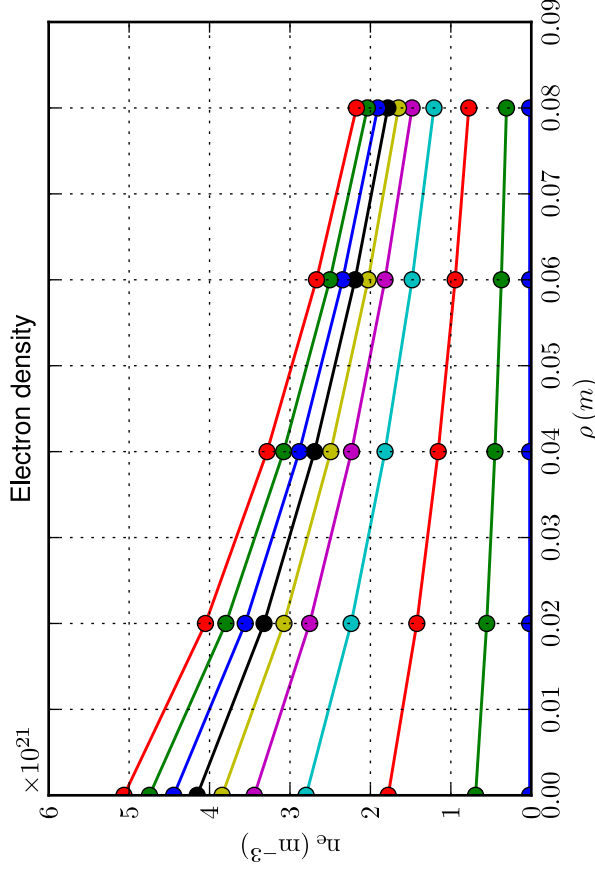
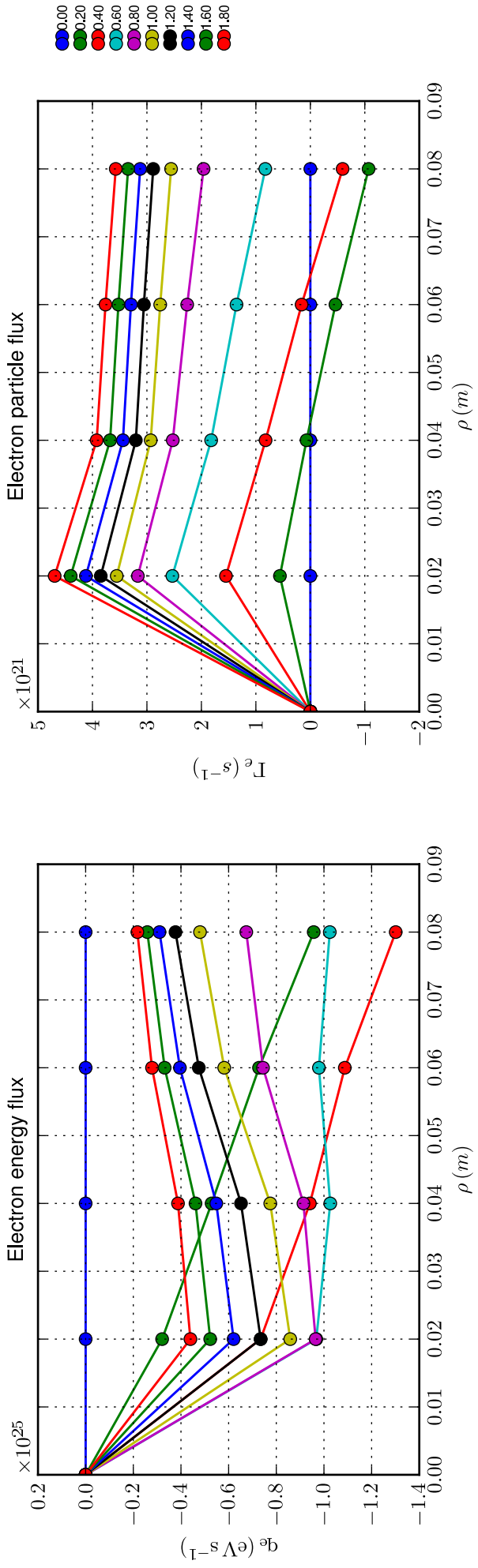
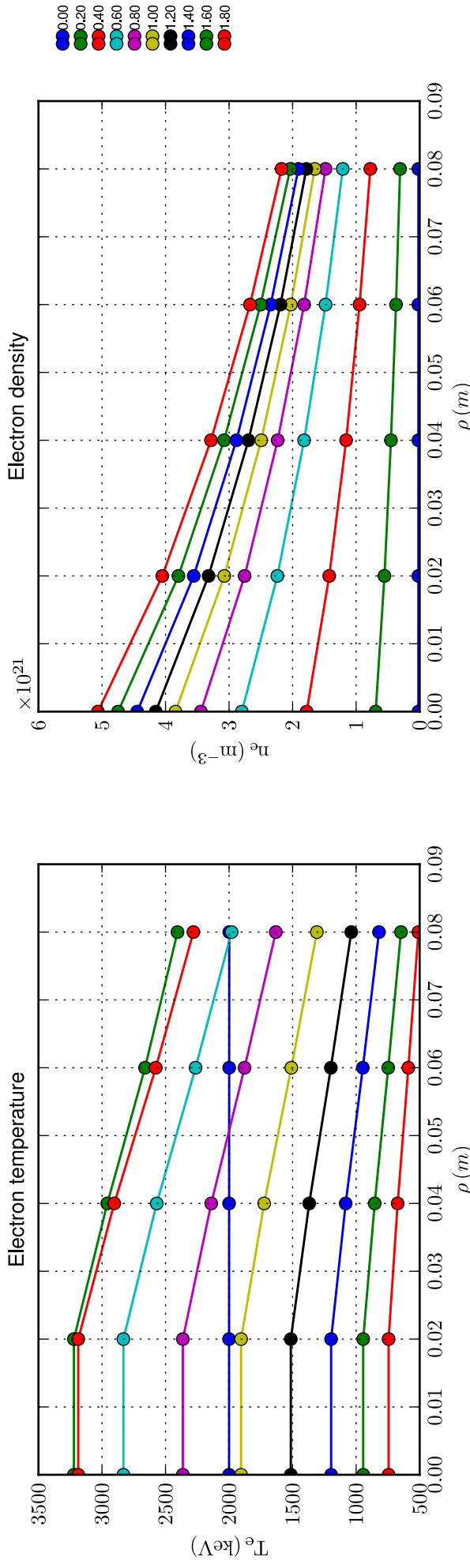
Profiles [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_\rho = 101$]

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

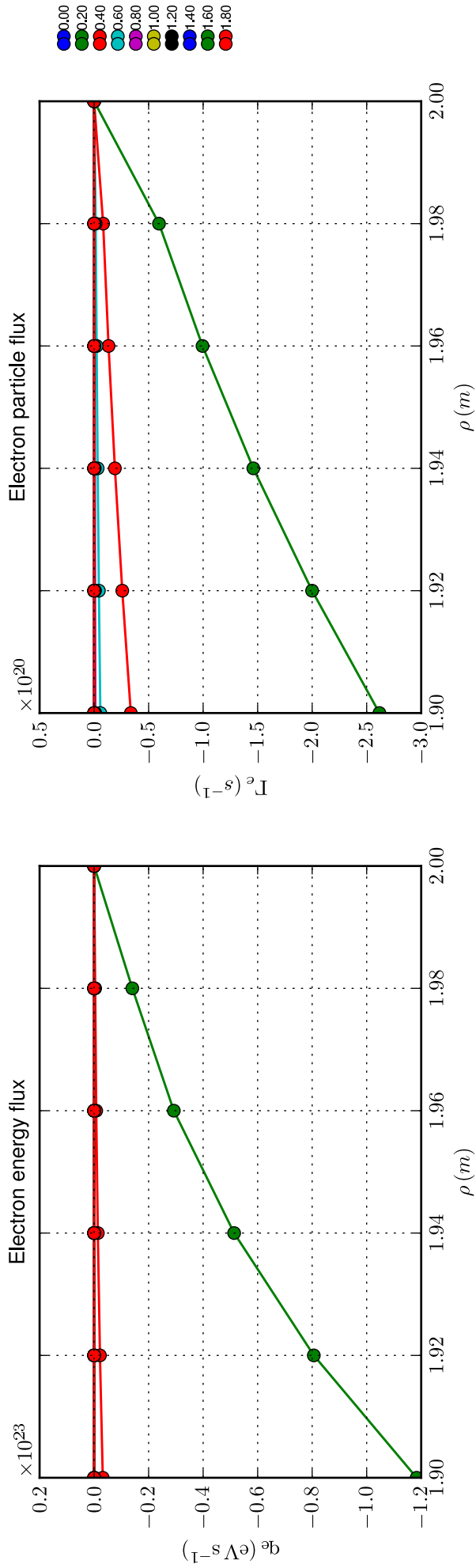
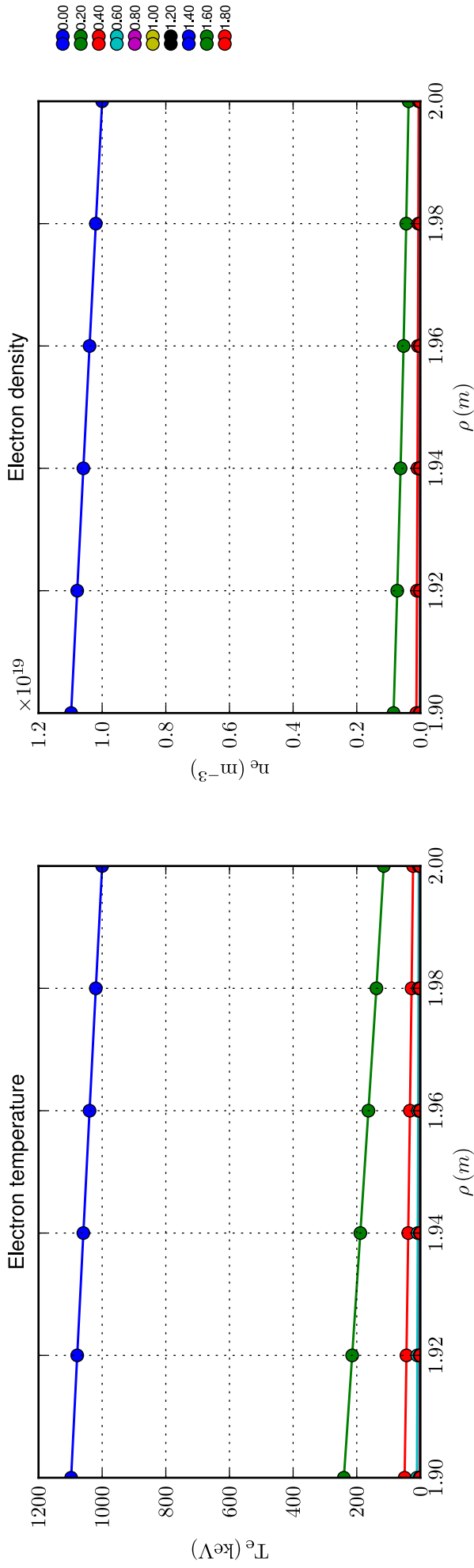


0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
1.60
1.80

Profiles [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_\rho = 101$]
 Spatial zoom over magnetic axis; time sampling: first 10 time slices or zoom over time $0.1 \times (a^2/D)/|1 - (V_a/D)| = 0.19 \text{ s}$

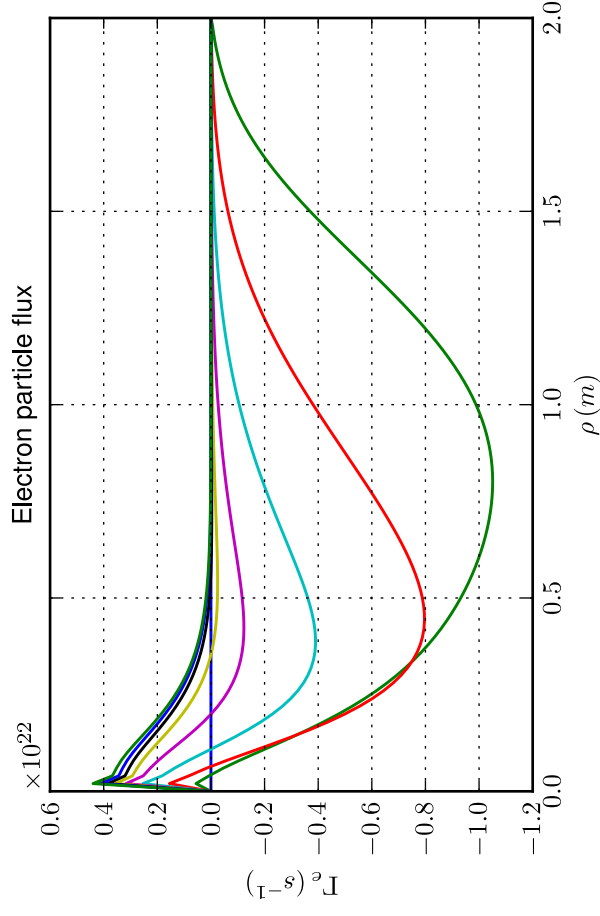
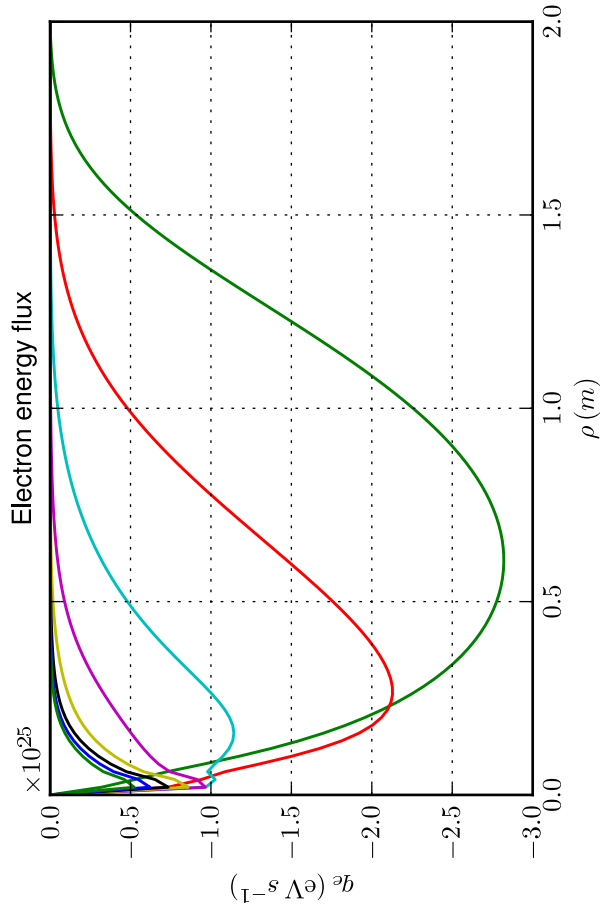
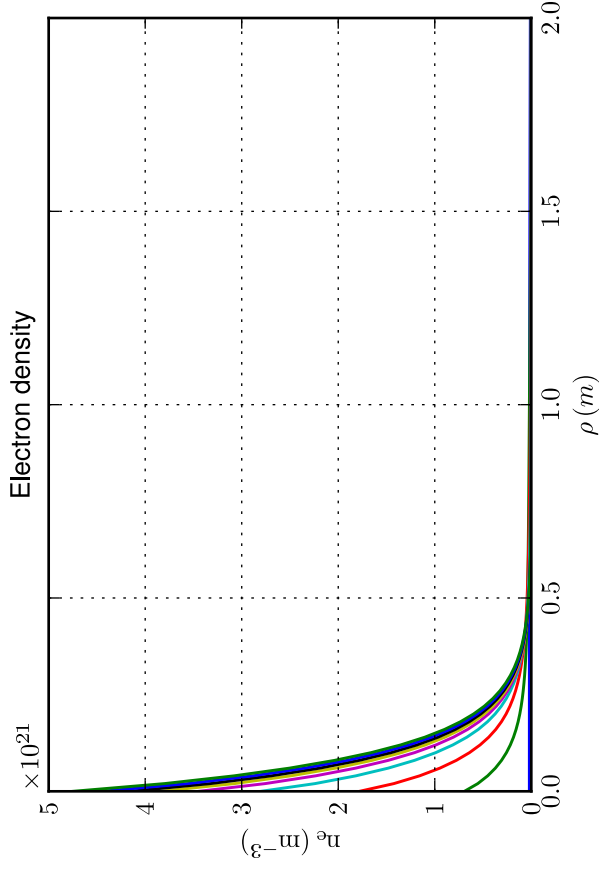
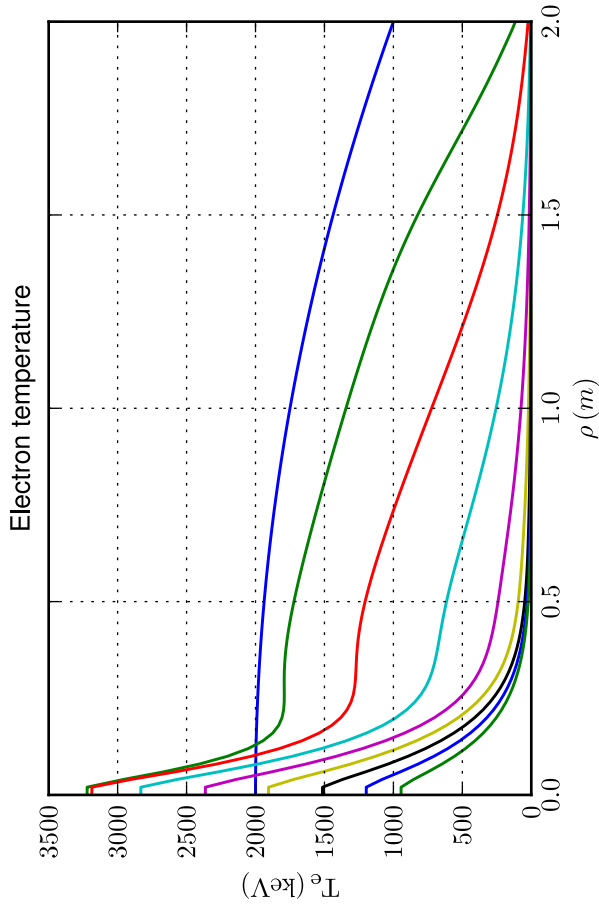


Profiles [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_\rho = 101$]
 Spatial zoom over edge; time sampling: first 10 time slices or zoom over time $0.1 \times (a^2/D)/|1 - (Va/D)| = 0.19 \text{ s}$



Profiles [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_\rho = 101$]

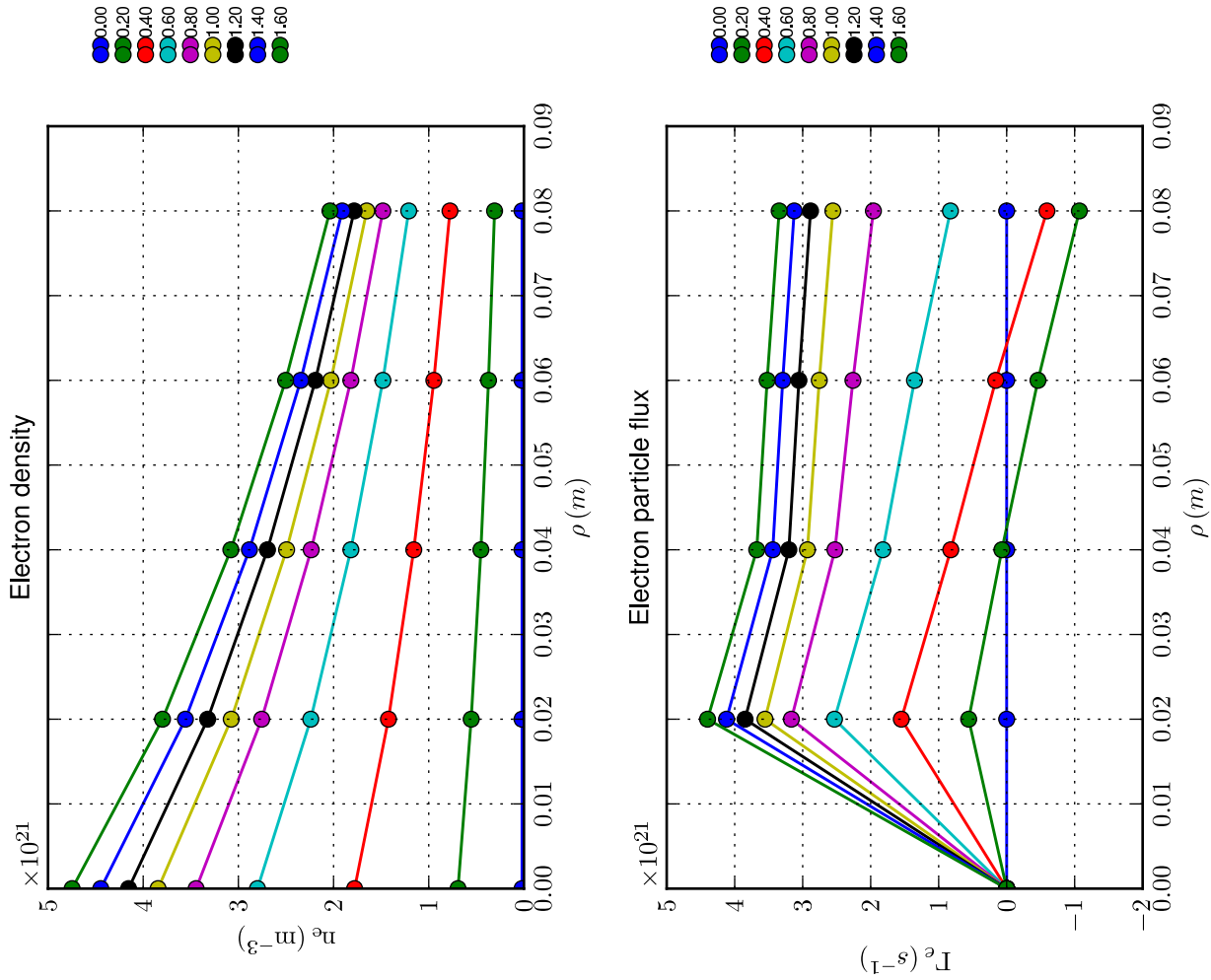
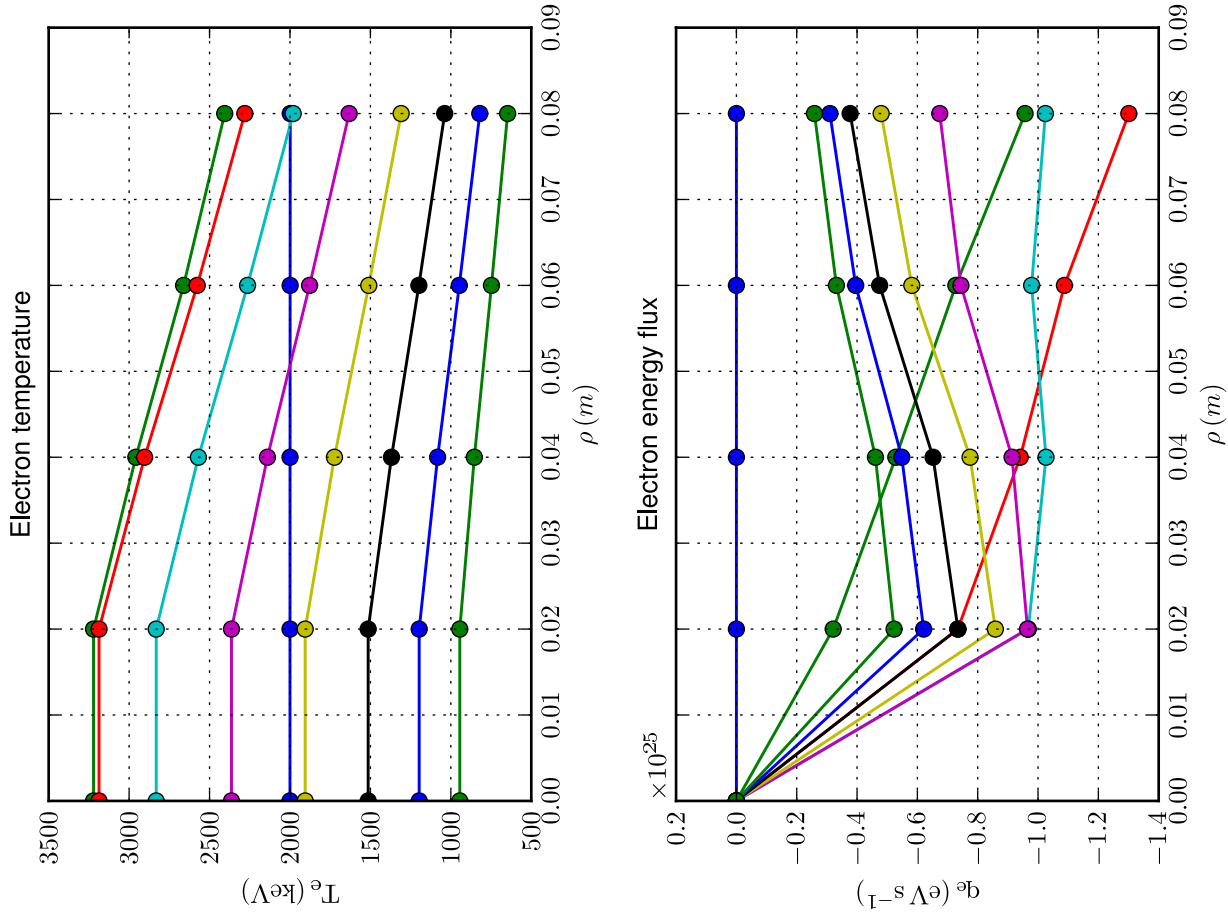
Time sampling: last 10 time slices



Legend for time slices:

- 0.00
- 0.20
- 0.40
- 0.60
- 0.80
- 1.00
- 1.20
- 1.40
- 1.60

Profiles [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_\rho = 101$]
 Spatial zoom over magnetic axis; time sampling: last 10 time slices



Profiles [Case: I.1.5.j, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = -1.00 \text{ m/s}$, $\Delta t = 20.00$, $\tau = 1.0 \times 10^{-3} \text{ s}$, $N_\rho = 101$]
 Spatial zoom over edge; time sampling: last 10 time slices

