Case	Subfolder	D	v	trelax=(x**2/D)/abs(1-(Vx/D))	Total execution time	Np	dt	h=1/Np	vh/D	CFL = v dt / h	CFL2 = D dt / h*h	SOLVER	ID	Exec status	Username	Comments
I.1.5	_solver3_Np101_dt1e-3	0.1	0	40	50	101	0.001000	0.009901	0.000000	0.000000	1.020100	3	S2006	OK	JPB	Convergence in density reached; asymptotic solution (for density) reached; convergence in temperature never fully reached
	_solver7_Np101_dt1e-3											7	S3661	OK		
	_solver10_Np101_dt1e-3											10	S5205			Pereverzev's conditions marked in yellow
	_solver3_Np51_dt1e-3	0.1	0			51	0.001000	0.019608	0.000000	0.000000	0.260100	3	S2077	OK		
	_solver7_Np51_dt1e-3											7	S2130	OK		
	_solver10_Np51_dt1e-3											10				
	_solver3_Np101_dt1e-2	0.1	0			101	0.010000	0.009901	0.000000	0.000000	10.201000	3	S2177	OK		
	_solver7_Np101_dt1e-2											7	S5145	OK		
	_solver10_Np101_dt1e-2											10				
I.1.5.a	_solver3_Np101_dt1e-3	0.1	0.1	40	100 / 50	101	0.001000	0.009901	0.009901	0.010100	1.020100	3	S2017	OK	JPB	Convergence in temperature reached; convergence in density reached; asymptotic solution never reached (after 50s and 100s)
												7	S5143			
	_solver3_Np51_dt1e-3	0.1	0.1			51	0.001000	0.019608	0.019608	0.005100	0.260100	3	S2092	OK		
	_solver3_Np101_dt1e-2	0.1	0.1			101	0.010000	0.009901	0.009901	0.101000	10.201000	3	S3662	OK		
I.1.5.b	_solver3_Np101_dt1e-3	0.1	0.3	8	10	101	0.001000	0.009901	0.029703	0.030300	1.020100	3	S2028	OK	LLA - closed	No convergence for both density and temperature (worse for density); deviation from asymptotic solution increases with time. Errors are similar for solvers 3 and 7; the latter reduces the energy error with time, at short time-steps. / Increasing number of points reduces deviation from asymptotic solution (tested for solver 3) / Neither solver yields zero steady-state particle- and energy- flux. The on-axis behavior of Te is different for solvers 3 and 7.
	_solver7_Np101_dt1e-3											7	S3917	Failed to converge beyond 5.5s (for 10s total time). Max nb iterations exceeded		
	_solver10_Np101_dt1e-3											10	S5320	Failed to initiate. First error > 1e9 (NO GRAPHS)		
	_solver3_Np51_dt1e-3	0.1	0.3			51	0.001000	0.019608	0.058824	0.015300	0.260100	3	S2063	OK		
	_solver3_Np51_dt1e-3_totaltime20	0.1	0.3		50	51	0.001000	0.019608	0.058824	0.015300	0.260100	3	S2345	Failed to converge beyond 20s (for 50s total time). Max nb iterations exceeded		
	_solver7_Np51_dt1e-3											7	S5138	Failed to converge beyond 2.8s (for 10s total time). Max nb iterations exceeded		
	_solver10_Np51_dt1e-3											10	S5322	Failed to initiate. First error > 1e9 (NO GRAPHS)		
	_solver3_Np101_dt1e-2	0.1	0.3			101	0.010000	0.009901	0.029703	0.303000	10.201000	3	S2014	OK		
	_solver3_Np501_dt1e-2	0.1	0.3			501	0.010000	0.001996	0.005988	1.503000	251.001000	3	S3663	OK. The increase to 501 points considerably reduced the accuracy error		
	_solver7_Np101_dt1e-2											7	S5194	OK		
	_solver10_Np101_dt1e-2											10	S5323	Failed to initiate. First error > 1e9 (NO GRAPHS)		
I.1.5.c	_solver3_Np101_dt1e-3	0.1	1.0	2.105263158	4	101	0.001000	0.009901	0.099010	0.101000	1.020100	3	S2053	Failed to converge beyond 1.7s (for 4s total time). Max nb iterations exceeded	JPB	For v>1 the number of iterations exceeds the max value of 1000, apparently because ETS doesn't conserve the number of particles. The situation is mitigated (not solved) by increasing Np and decreasing dt
												7	S2D4			
	_solver3_Np51_dt1e-3	0.1	1.0			51	0.001000	0.019608	0.196078	0.051000	0.260100	3	S3675	Failed to converge beyond 0.7s (for 4s total time). Max nb iterations exceeded		
	_solver3_Np101_dt1e-2	0.1	1.0			101	0.010000	0.009901	0.099010	1.010000	10.201000	3	S5146	Failed to converge beyond 1.0s (for 4s total time). Max nb iterations exceeded		
I.1.5.d	_solver3_Np101_dt1e-3	0.1	2.0	1.025641026	2	101	0.001000	0.009901	0.198020	0.202000	1.020100	3	S2029	Failed to converge beyond 0.1h (for 2s total time). Max nb iterations exceeded (NO GRAPHS)	LLA - closed	
	_solver7_Np101_dt1e-3											7	S3677	Failed to converge beyond 6.2e-2s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)		
	_solver10_Np101_dt1e-3											10	S3915	Failed to initiate. First error > 1e9 (NO GRAPHS)		
	_solver3_Np501_dt1e-3	0.1	2.0			501	0.001000	0.001996	0.039920	1.002000	25.100100	3	S2067	Failed to converge beyond 0.7s (for 2s total time). Max nb iterations exceeded		
	_solver3_Np501_dt1e-4	0.1	2.0			501	0.000100	0.001996	0.039920	0.100200	2.510010	3	S2086	Failed to converge beyond 0.9s (for 2s total time). Max nb iterations exceeded		
	_solver3_Np51_dt1e-3	0.1	2.0			51	0.001000	0.019608	0.392157	0.102000	0.260100	3	S2066	Failed to converge beyond 2e-2s (for 2s total time). Convergence-control > 10? (NO GRAPHS)		
	_solver7_Np51_dt1e-3											7	S3911	Failed to converge beyond 9e-3s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)		
	_solver10_Np51_dt1e-3											10	S3916	Failed to initiate. First error > 1e9 (NO GRAPHS)		
	_solver3_Np101_dt1e-2	0.1	2.0			101	0.010000	0.009901	0.198020	2.020000	10.201000	3	S2021	Failed to converge beyond 7e-2s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)		
	_solver7_Np101_dt1e-2											7	S3914	Failed to converge beyond 4e-2s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)		
	_solver10_Np101_dt1e-2											10	S5139	Failed to initiate. First error > 1e9 (NO GRAPHS)		
I.1.5.e	_solver3_Np101_dt1e-3	0.1	3.0	0.677966102	2	101	0.001000	0.009901	0.297030	0.303000	1.020100	3	S2095	Failed to converge beyond 3.7e-2s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)	JPB	We drop cases with v>2, for which non-conservation issues prevent convergence
	_solver3_Np51_dt1e-3	0.1	3.0			51	0.001000	0.019608	0.588235	0.153000	0.260100	3	S5202	Failed to initiate. First error >> 1 (NO GRAPHS)	JPB	
		0.1	3.0			101	0.010000	0.009901	0.297030	3.030000	10.201000	3				
I.1.5.f	_solver3_Np501_dt1e-3	0.1	4.0	0.506329114	2	501	0.001000	0.001996	0.079840	2.004000	25.100100	3	S2073	Failed to converge beyond 0.143s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)	LLA	
	_solver3_Np501_dt1e-4	0.1	4.0	0.506329114	2	501	0.000100	0.001996	0.079840	0.200400	2.510010	3	S2085	Failed to converge beyond 0.2s (for 2s total time). Max nb iterations exceeded	LLA	
		0.1	4.0			51	0.001000	0.019608	0.784314	0.204000	0.260100	3				
		0.1	4.0			101	0.010000	0.009901	0.396040	4.040000	10.201000	3				
I.1.5.g		0.1	5.0	0.404040404	2	101	0.001000	0.009901	0.495050	0.505000	1.020100	3				
		0.1	5.0			51	0.001000	0.019608	0.980392	0.255000	0.260100	3				
		0.1	5.0			101	0.010000	0.009901	0.495050	5.050000	10.201000	3				
I.1.5.h	_solver3_Np101_dt1e-3	0.1	-0.1	13.33333333	20	101	0.001000	0.009901	-0.009901	-0.010100	1.020100	3	S5148	OK	JPB	Convergence in density reached; asymptotic solution (for density) reached; convergence in temperature never fully reached
		0.1	-0.1			51	0.001000	0.019608	-0.019608	-0.005100	0.260100	3	S5200			
		0.1	-0.1			101	0.010000	0.009901	-0.009901	-0.101000	10.201000	3				
I.1.5.i	_solver3_Np101_dt1e-3	0.1	-0.3	5.714285714	10	101	0.001000	0.009901	-0.029703	-0.030300	1.020100	3	S3912	OK	LLA	Convergence in density reached; convergence in temperature never fully reached; asymptotic solution never fully reached
	_solver7_Np101_dt1e-3											7	S5321	Failed to converge beyond 7.7s (for 10s total time). Max nb iterations exceeded		
	_solver3_Np51_dt1e-3	0.1	-0.3			51	0.001000	0.019608	-0.058824	-0.015300	0.260100	3	S5141	OK		
	_solver7_Np51_dt1e-3											7	S5425	Failed to converge beyond 3.6s (for 10s total time). Max nb iterations exceeded		
	_solver3_Np101_dt1e-2	0.1	-0.3			101	0.010000	0.009901	-0.029703	-0.303000	10.201000	3	S5196	OK		
												7	S5559			
I.1.5.j	_solver3_Np101_dt1e-3	0.1	-1.0	1.904761905	4	101	0.001000	0.009901	-0.099010	-0.101000	1.020100	3	S5149	Failed to converge beyond 1.81s (for 4s total time). Max nb iterations exceeded	JPB	
		0.1	-1.0			51	0.001000	0.019608	-0.196078	-0.051000	0.260100	3	S5197			
		0.1	-1.0			101	0.010000	0.009901	-0.099010	-1.010000	10.201000	3				
I.1.5.k	_solver3_Np101_dt1e-3	0.1	-2.0	0.975609756	2	101	0.001000	0.009901	-0.198020	-0.202000	1.020100	3	S3913	Failed to converge beyond 0.3s (for 2s total time). Max nb iterations exceeded	LLA - closed	No convergence for both density and temperature (worse for density); deviation from asymptotic solution increases with time
	_solver7_Np101_dt1e-3											7	S5203	Failed to converge beyond 0.06s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)		
	_solver10_Np101_dt1e-3											10	S5428	Failed to converge beyond 0.115s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)		

Label													
_solver5_Np51_dt1e-3	0.1	-2.0			51	0.001000	0.019608	-0.392157	-0.102000	0.260100	3	SS144	**Failed to converge beyond 1.3e-2s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)**
_solver7_Np51_dt1e-3											7	SS324	**Failed to converge beyond 0.01s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)**
_solver10_Np51_dt1e-3											10	SS429	**Failed to converge beyond 0.11s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)**
_solver5_Np101_dt1e-2	0.1	-2.0			101	0.010000	0.009901	-0.198020	-2.020000	10.201000	3	SS147	**Failed to converge beyond 0.12s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)**
_solver7_Np101_dt1e-2											7	SS426	**Failed to initiate (unknown reason) (NO GRAPHS)**
_solver10_Np101_dt1e-2											10	SS432	**Failed to converge beyond 0.11s (for 2s total time). Max nb iterations exceeded (NO GRAPHS)**
l.1.5.l	0.1	-3.0	0.655737705	2	101	0.001000	0.009901	-0.297030	-0.303000	1.020100	3 / 7 / 10		
	0.1	-3.0			51	0.001000	0.019608	-0.588235	-0.153000	0.260100	3 / 7 / 10		
	0.1	-3.0			101	0.010000	0.009901	-0.297030	-3.030000	10.201000	3 / 7 / 10		
l.1.5.m	0.1	-4.0	0.49382716	2	101	0.001000	0.009901	-0.396040	-0.404000	1.020100	3 / 7 / 10		
	0.1	-4.0			51	0.001000	0.019608	-0.784314	-0.204000	0.260100	3 / 7 / 10		
	0.1	-4.0			101	0.010000	0.009901	-0.396040	-4.040000	10.201000	3 / 7 / 10		
l.1.5.n	0.1	-5.0	0.396039604	2	101	0.001000	0.009901	-0.495050	-0.505000	1.020100	3 / 7 / 10		
	0.1	-5.0			51	0.001000	0.019608	-0.980392	-0.255000	0.260100	3 / 7 / 10		
	0.1	-5.0			101	0.010000	0.009901	-0.495050	-5.050000	10.201000	3 / 7 / 10		