

Linear scalar advection, Gauss pulse, Lax-Friedrichs flux

ncells	N = 3, CFL = 1		N = 4, CFL = 0.1		N = 5, CFL = 0.1	
	L2	EOC	L2	EOC	L2	EOC
50	4.54E-05	-	2.58E-06	-	1.35E-07	-
100	2.72E-06	4.06	7.40E-08	5.13	1.98E-09	6.09
200	1.70E-07	4.00	2.36E-09	4.97	3.12E-11	5.99
400	1.06E-08	4.00	7.44E-11	4.98	4.88E-13	6.00
800	6.65E-10	4.00	2.33E-12	5.00		
Avg. EOC		4.01	Avg. EOC		5.02	Avg. EOC 6.03

Euler, convergence test, Lax-Friedrichs flux

ncells	N = 3, CFL = 1		N = 4, CFL = 0.1		N = 5, CFL = 0.1	
	L2 (density)	EOC	L2 (density)	EOC	L2 (density)	EOC
20	3.04E-02	-	1.88E-03	-	8.65E-04	-
40	2.58E-03	3.56	1.19E-04	3.98	1.19E-05	6.19
80	6.62E-05	5.28	5.36E-06	4.47	8.35E-08	7.15
160	3.31E-06	4.32	2.64E-07	4.34	1.23E-09	6.09
320	2.22E-07	3.90	1.11E-08	4.57	1.68E-11	6.19
Avg. EOC		4.27	Avg. EOC		4.34	Avg. EOC 6.40

Euler, convergence test, HLLC flux

ncells	N = 3, CFL = 1		N = 4, CFL = 0.1		N = 5, CFL = 0.1	
	L2 (density)	EOC	L2 (density)	EOC	L2 (density)	EOC
20	2.39E-02	-	2.06E-03	-	5.58E-04	-
40	1.74E-03	3.78	1.25E-04	4.05	6.85E-06	6.35
80	7.92E-05	4.45	3.04E-06	5.36	1.01E-07	6.08
160	5.55E-06	3.84	1.09E-07	4.81	1.66E-09	5.93
320	3.50E-07	3.99	3.35E-09	5.02	2.57E-11	6.01
Avg. EOC		4.01	Avg. EOC		4.81	Avg. EOC 6.09

Setup

x_start = -10

x_end = 10

L = 2 (= ten wavelengths in domain)

t_end = 1