

# InterfaceAnalyticalSolution

## CompareMethods

March 5, 2024

ncells	setMesh(%)	rhs(%)	matrix(%)	solver(%)	solve(%)	postp(%)	sum
14	0.00	1.02	3.92	87.95	6.81	0.30	1.94e-01
42	0.02	3.20	9.72	50.87	33.70	2.49	2.02e-02
162	0.02	2.80	7.41	58.91	27.72	3.15	2.82e-02
614	0.01	2.64	7.10	58.78	29.28	2.19	3.64e-02
2398	0.00	2.51	5.56	59.08	30.93	1.91	7.93e-02
9522	0.00	2.98	5.97	58.53	30.24	2.27	2.05e-01
37966	0.00	3.51	6.00	55.15	32.97	2.36	7.89e-01
151712	0.00	3.22	5.76	51.19	37.52	2.32	3.44e+00
606506	0.00	2.91	5.56	47.03	42.03	2.47	1.59e+01

Table 1: timer-

ncells	
14	0.19
42	0.02
162	0.03
614	0.04
2398	0.08
9522	0.21
37966	0.79
151712	3.44
606506	15.89

Table 2: timer

ncells	lin-
14	4
42	10
162	11
614	13
2398	16
9522	16
37966	19
151712	21
606506	22

Table 3: iter

ncells		-o
14	1.32e-01	0.00
42	3.38e-02	2.48
162	3.59e-02	-0.09
614	1.62e-02	1.19
2398	8.30e-03	0.98
9522	3.09e-03	1.43
37966	1.72e-03	0.85
151712	4.62e-04	1.90
606506	2.45e-04	0.91

Table 4: errL2c

ncells		-o
14	1.33e-01	0.00
42	3.75e-02	2.31
162	3.74e-02	0.00
614	1.61e-02	1.27
2398	8.25e-03	0.98
9522	3.08e-03	1.43
37966	1.72e-03	0.84
151712	4.62e-04	1.90
606506	2.45e-04	0.91

Table 5: errL2n

ncells		-o
14	0.40	0.00
42	0.22	1.11
162	0.31	-0.53
614	0.19	0.72
2398	0.12	0.74
9522	0.09	0.44
37966	0.06	0.44
151712	0.05	0.49
606506	0.03	0.51

Table 6: errH1

ncells		-o
14	0.41	0.00
42	0.22	1.11
162	0.32	-0.54
614	0.20	0.72
2398	0.12	0.74
9522	0.09	0.44
37966	0.06	0.44
151712	0.05	0.49
606506	0.03	0.51

Table 7: errFlux