

Algorithm	$\bar{\omega}_f$	$\bar{\omega}_b$	It	Fl $\times 10^6$	Fl_{tot} $\times 10^6$	E_{tot}
pmRecEWA	1.1731	1.1731	77	0.693	2.412	1.78
lmRecEWA	1.	1.3088	73	0.526	1.884	1.39
lmRecEWA	1.1569	1.1569	73	0.657	1.917	1.42
pmRecAGA-A	1.1319	1.1319	62	0.614	1.515	1.12
lmRecAGA-A	1.	1.2477	57	0.462	1.492	1.10
lmRecAGA-A	1.1190	1.1190	59	0.584	1.564	1.16
pmRecAGA-B	1.	1.2862	69	0.621	1.791	1.32
pmRecAGA-B	1.1436	1.1436	68	0.734	2.052	1.52
lmRecAGA-B	1.	1.2626	67	0.603	1.782	1.35
lmRecAGA-B	1.1365	1.1365	69	0.745	1.987	1.47
RecAGA-B1	1.1063	1.1063	53	0.572	1.480	1.09
lmRecAGA-B1	1.0894	1.0894	48	0.562	1.511	1.12
plmRecAGA-B2	1.0756	1.0756	43	0.581	1.543	1.14
RecAGA-C(2)	1.1376	1.1376	67	0.844	2.296	1.70
pmRecAGA-C(2)	1.1159	1.1159	57	0.770	2.174	1.61
lmRecAGA-C(2)	1.1048	1.1048	53	0.716	1.972	1.46
RecAGA-C(3)	1.2524	1.	65	0.995	2.678	1.98
RecAGA-C(3)	1.1294	1.1294	65	1.112	3.438	2.54
pmRecAGA-C(3)	1.2544	1.	52	0.842	2.300	1.70
pmRecAGA-C(3)	1.1092	1.1092	56	1.008	2.591	1.92
lmRecAGA-C(3)	1.	1.2144	50	0.810	2.235	1.65
lmRecAGA-C(3)	1.0989	1.0989	51	0.918	2.538	1.88
lmRecAGA-D	1.0704	1.0704	40	0.612	1.683	1.24
plmRecAGA-D1	1.0641	1.0641	38	0.616	1.847	1.37
plmRecAGA9R-A2	1.0721	1.0721	30	0.270	0.648	0.48
RecSLOR	–	1.7505	117	0.824	1.352	1.00
plmRecAGA9-A	1.0978	1.0978	48	0.864	2.602	1.30
pmRecAGA9-A1	1.0875	1.0875	44	0.871	2.139	1.06
plmRecAGA9-A1	1.0826	1.0826	43	0.890	2.505	1.25
RecSLOR9	–	1.7504	117	1.264	2.009	1.00

TABLE B.1.7. Problem A(b) ($30 \times 30 = 900$ mesh points). It is the number of iterations needed to obtain a solution, Fl is the corresponding computational work, $Fl_{tot} = Fl_p + Fl$ is the total computational work, and E_{tot} is the total coefficient of efficiency defined in (B.2). Only the plmRecAGA9R-A2 double SOR algorithm (marked in bold) is efficient compared to RecSLOR (also marked in bold); its total coefficient of efficiency is 0.48.

Variant A(c), with $M = N = 60$

Results for variant A(c) are shown in tables B.1.8 and B.1.9. The convergence behavior of particular algorithms compared to RecSLOR is similar to that for variant A(b).

However, the values of E_{tot} (table B.1.9) decrease for some algorithms, for example, the lmRecEWA and lmRecAGA-A backward SOR and RecAGA-B1 with double SOR, which are equivalent to RecSLOR.

Algorithm	ω_f	ω_b	ϱ_ω	It_p	$Fl_p \times 10^6$	$\bar{\omega}_f$	$\bar{\omega}_b$	$\bar{\varrho}_\omega$
pmRecEWA	1.13	1.13	0.969558	144	13.93	1.1964	1.1964	0.8112
	1.15	1.15	0.960442	114				
	1.16	1.16	0.953559	129				
lmRecEWA	1.	1.3	0.938849	113	8.179	1.	1.3565	0.7889
	1.	1.33	0.910605	55				
	1.	1.35	0.862104	116				
lmRecEWA	1.13	1.13	0.961363	125	11.63	1.1798	1.1798	0.8043
	1.15	1.15	0.946047	101				
	1.16	1.16	0.932503	97				
pmRecAGA-A	1.11	1.11	0.950654	95	8.871	1.1526	1.1526	0.7703
	1.12	1.12	0.941253	71				
	1.13	1.13	0.927332	58				
lmRecAGA-A	1.	1.23	0.927517	97	7.777	1.	1.2903	0.7376
	1.	1.25	0.909047	79				
	1.	1.26	0.895544	64				
lmRecAGA-A	1.11	1.11	0.933962	92	7.643	1.1390	1.1390	0.7579
	1.12	1.12	0.916584	58				
	1.13	1.13	0.884617	43				
pmRecAGA-B	1.	1.25	0.949334	135	12.62	1.	1.3335	0.7772
	1.	1.27	0.939487	109				
	1.	1.28	0.933016	107				
pmRecAGA-B	1.11	1.11	0.962387	135	14.17	1.1660	1.1660	0.7912
	1.13	1.13	0.949016	121				
	1.15	1.15	0.920444	72				
lmRecAGA-B	1.	1.25	0.937278	105	9.164	1.	1.3078	0.7761
	1.	1.27	0.920737	87				
	1.	1.28	0.908405	62				
lmRecAGA-B	1.12	1.12	0.951007	119	12.27	1.1589	1.1589	0.7889
	1.13	1.13	0.941067	99				
	1.14	1.14	0.925801	75				
RecAGA-B1	1.07	1.07	0.953446	68	6.783	1.1257	1.1257	0.7255
	1.09	1.09	0.936500	51				
	1.11	1.11	0.899823	38				
lmRecAGA-B1	1.08	1.08	0.920394	76	8.191	1.1080	1.1080	0.7137
	1.09	1.09	0.898721	57				
	1.1	1.1	0.857723	42				
plmRecAGA-B2	1.07	1.07	0.900608	55	7.576	1.0929	1.0929	0.6811
	1.08	1.08	0.868234	42				
	1.09	1.09	0.790356	47				

TABLE B.1.8. Problem A(c) ($60 \times 60 = 3600$ mesh points). The table is continued.