Test 1: Size and Nonnormality Scaling

Timing (seconds)

Miyajima

$\nu \setminus n$	20	40	60	80
0.5	6.552	0.005	0.010	0.014
1.0	0.001	0.002	0.005	0.009
2.0	0.001	0.002	0.006	0.014

Ogita

$\nu \setminus n$	20	40	60	80
0.5	0.176	1.215	4.042	10.022
1.0	0.424	1.190	4.004	9.939
2.0	0.176	1.282	4.012	10.089

V1

$\nu \setminus n$	20	40	60	80
0.5	0.411	0.001	0.003	0.006
1.0	0.001	0.001	0.003	0.007
2.0	0.001	0.002	0.003	0.005

V2

$\nu \setminus n$	20	40	60	80
0.5	0.001	0.001	0.003	0.137
1.0	0.000	0.001	0.003	0.006
2.0	0.000	0.001	0.002	0.006

V2.5

$\nu \setminus n$	20	40	60	80
0.5	0.001	0.002	0.003	0.011
1.0	0.000	0.002	0.003	0.005
2.0	0.000	0.001	0.002	0.005

V3

$\nu \setminus n$	20	40	60	80
0.5	0.000	0.001	0.002	0.007
1.0	0.000	0.001	0.003	0.005
2.0	0.000	0.001	0.002	0.005

Certified Bounds

Miyajima

$\nu \setminus n$	20	40	60	80
0.5	1.01e+01	7.89e+00	7.56e+00	6.46e+00
1.0	6.20e+01	4.80e+01	3.12e+01	1.38e+01
2.0	4.63e+03	7.61e+03	1.31e+03	6.59e+02

Ogita

$\nu \setminus n$	20	40	60	80
0.5	1.01e+01	7.89e+00	7.56e+00	6.46e+00
1.0	6.20e+01	4.80e+01	3.12e+01	1.38e+01
2.0	4.63e+03	7.61e+03	1.31e+03	6.59e+02

V1

$\nu \setminus n$	20	40	60	80
0.5	5.41e+04	6.86e+03	5.13e+04	2.98e+03
1.0	1.49e+09	4.58e+07	1.29e+11	3.29e+09
2.0	8.31e+16	1.51e+17	6.89e+22	3.14e+21

V2

$\nu \setminus n$	20	40	60	80
0.5	5.41e+04	6.86e+03	5.13e+04	2.98e+03
1.0	1.49e+09	4.58e+07	1.29e+11	3.29e+09
2.0	8.31e+16	1.51e+17	6.89e+22	3.14e+21

V2.5

$\nu \setminus n$	20	40	60	80
0.5	5.41e+04	6.86e+03	5.13e+04	2.98e+03
1.0	1.49e+09	4.58e+07	1.29e+11	3.29e+09
2.0	8.31e+16	1.51e+17	6.89e+22	3.14e+21

V3

$\nu \setminus n$	20	40	60	80
0.5	5.41e+04	6.86e+03	5.13e+04	2.98e+03
1.0	1.49e+09	4.58e+07	1.29e+11	3.29e+09
2.0	8.31e+16	1.51e+17	6.89e+22	3.14e+21