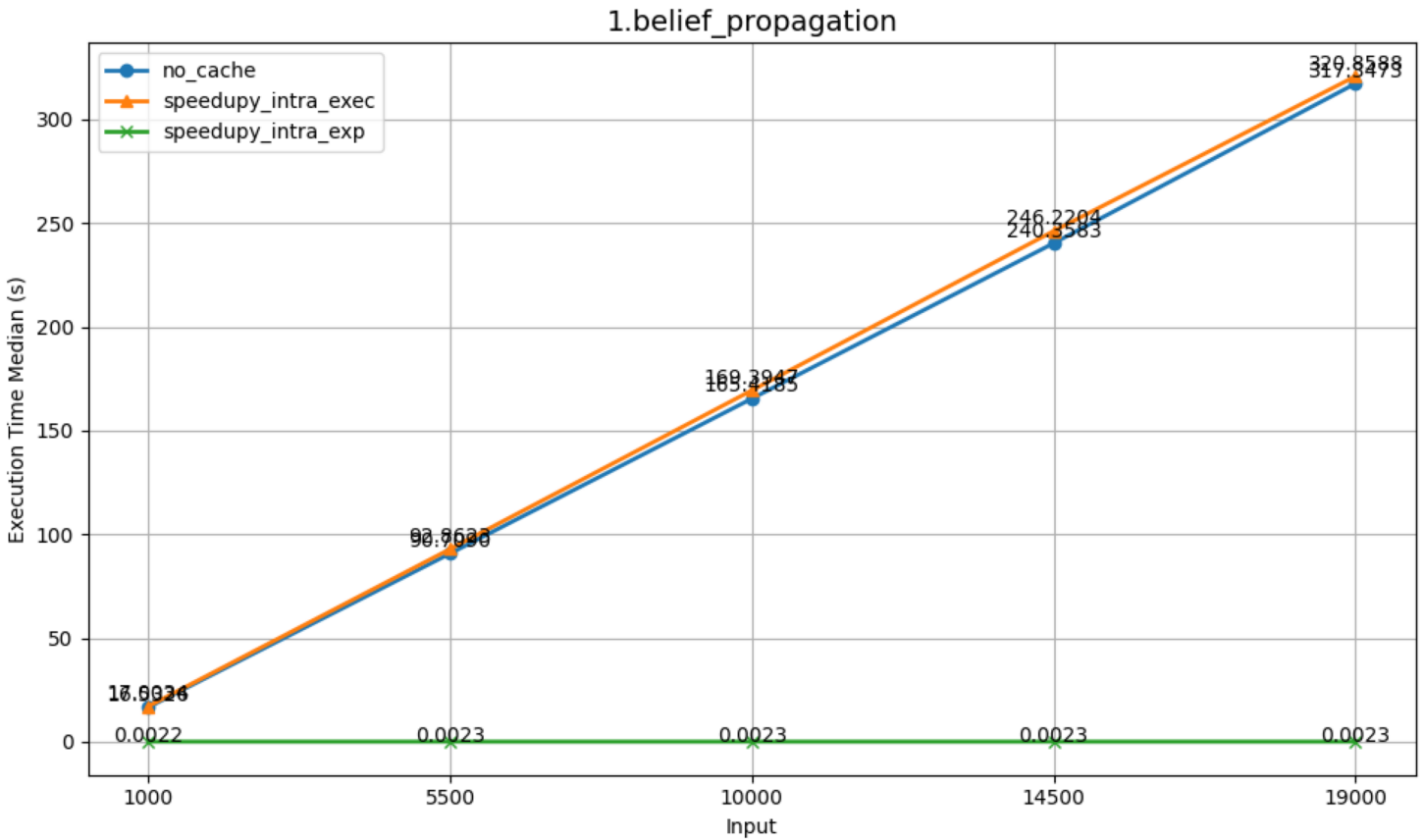
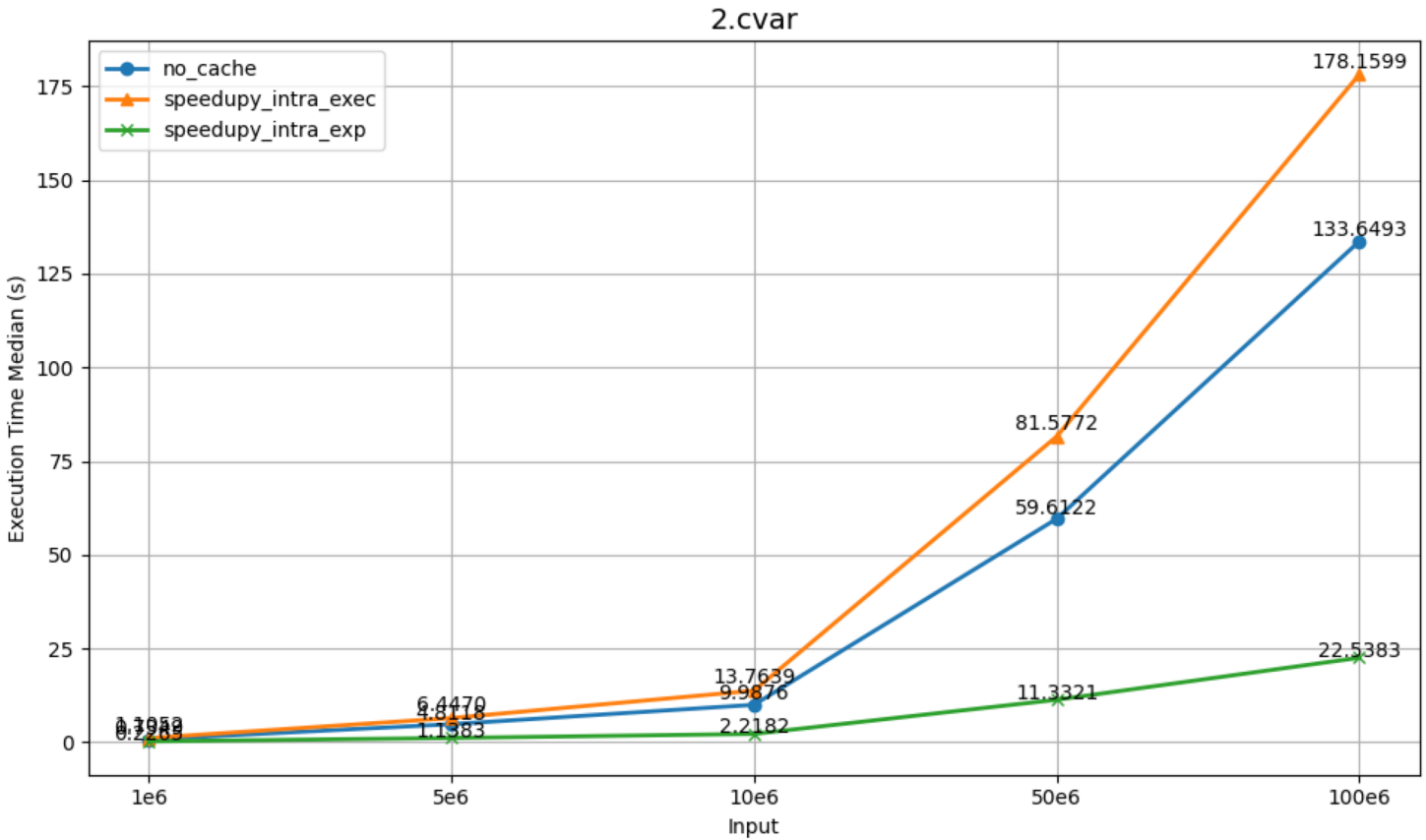
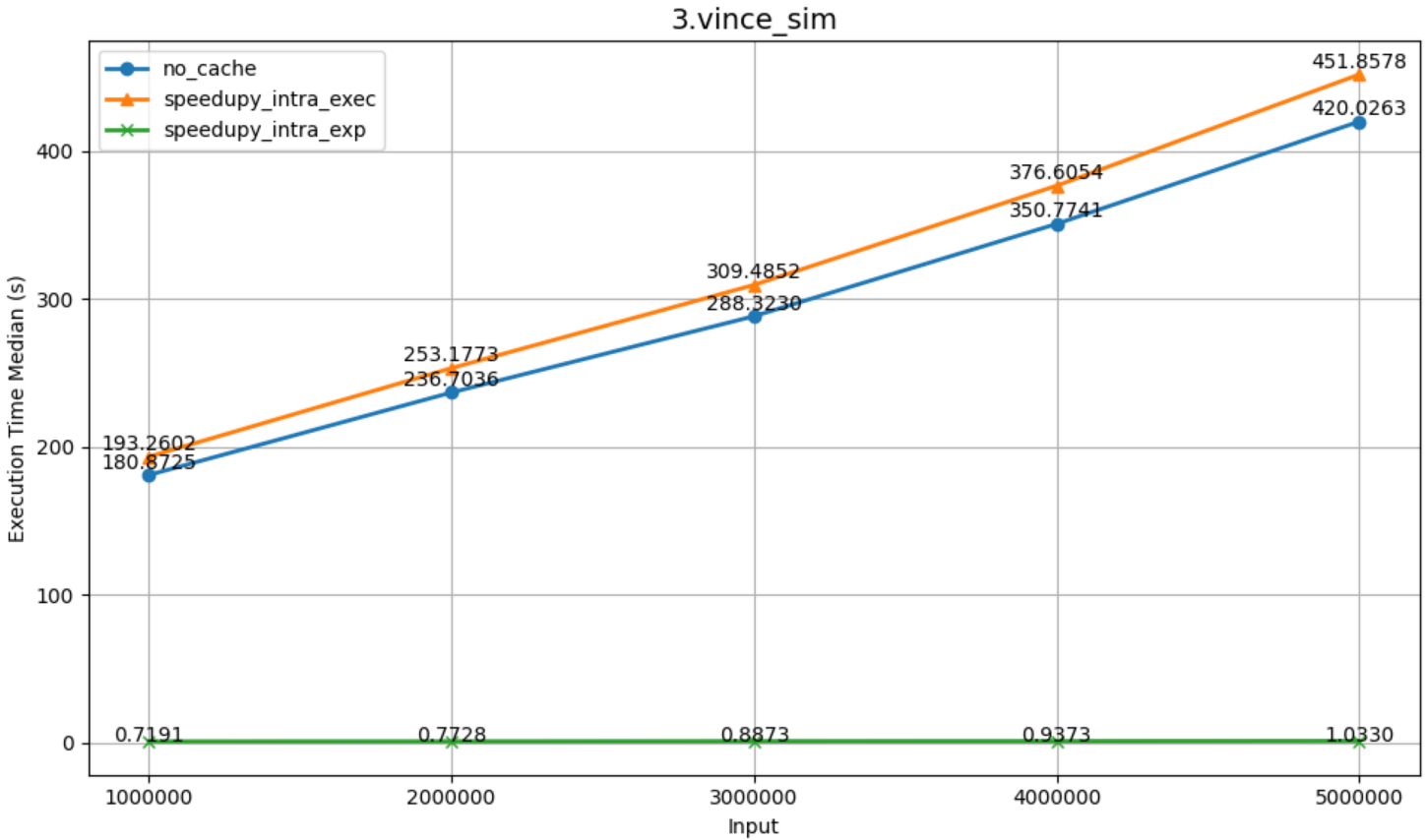
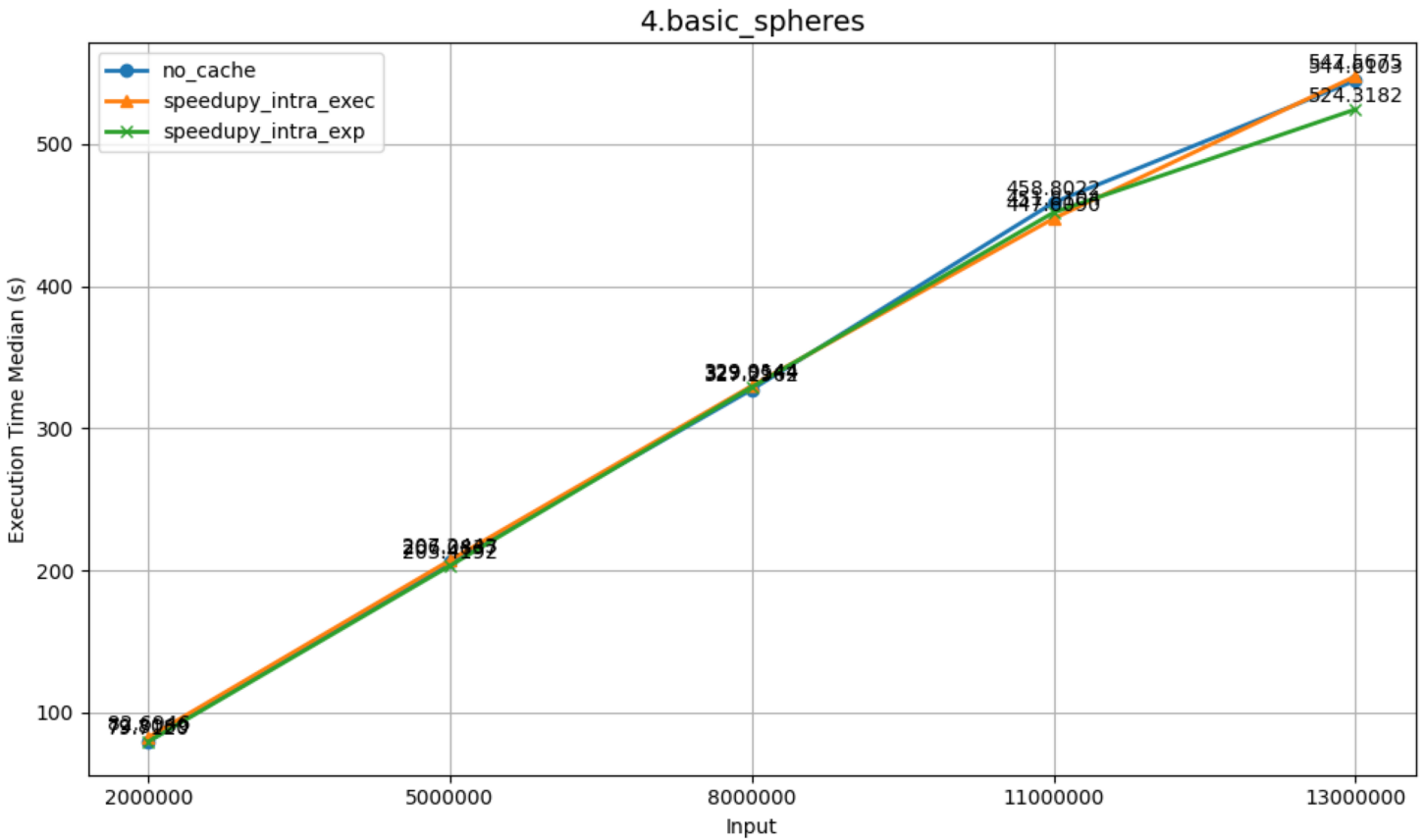
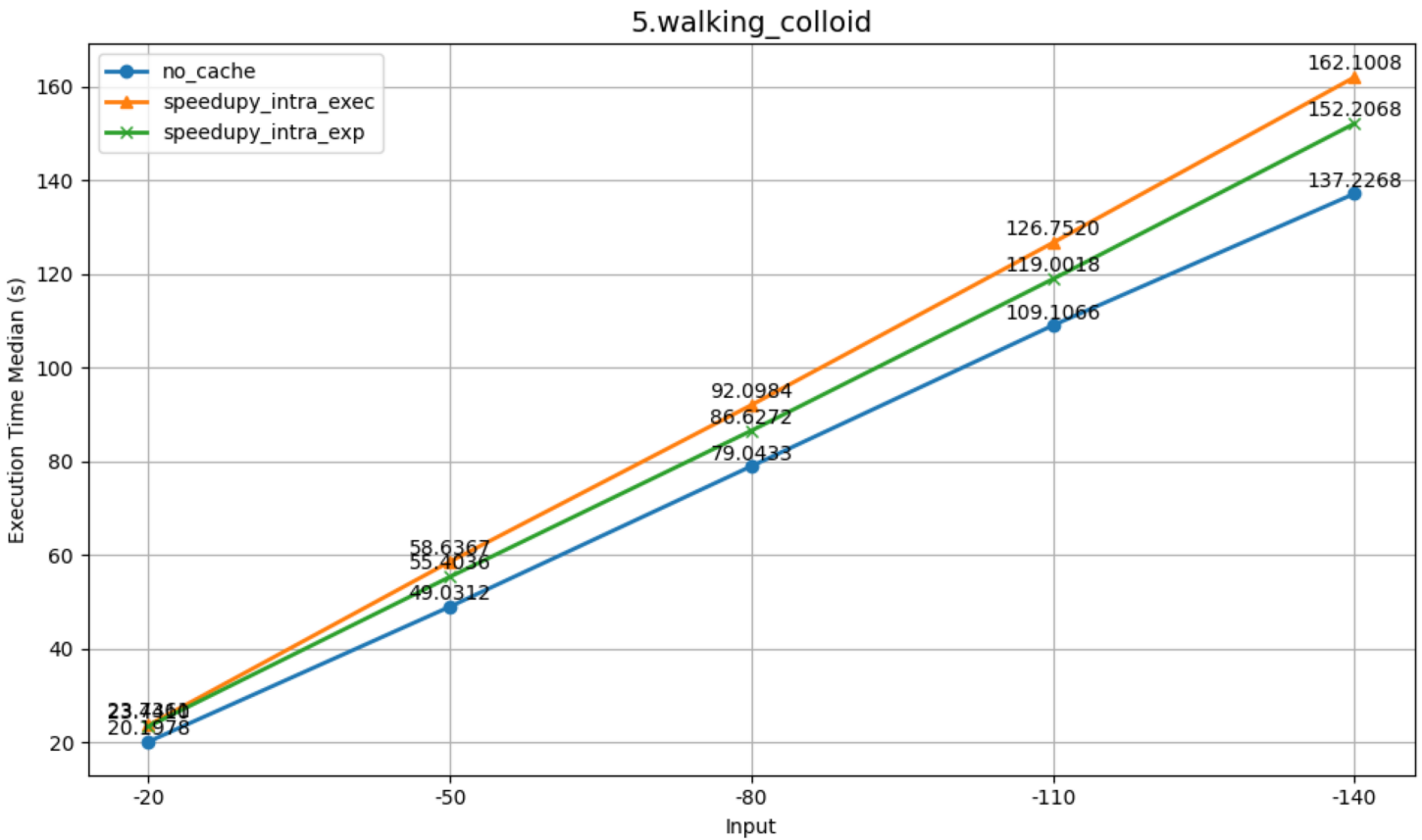
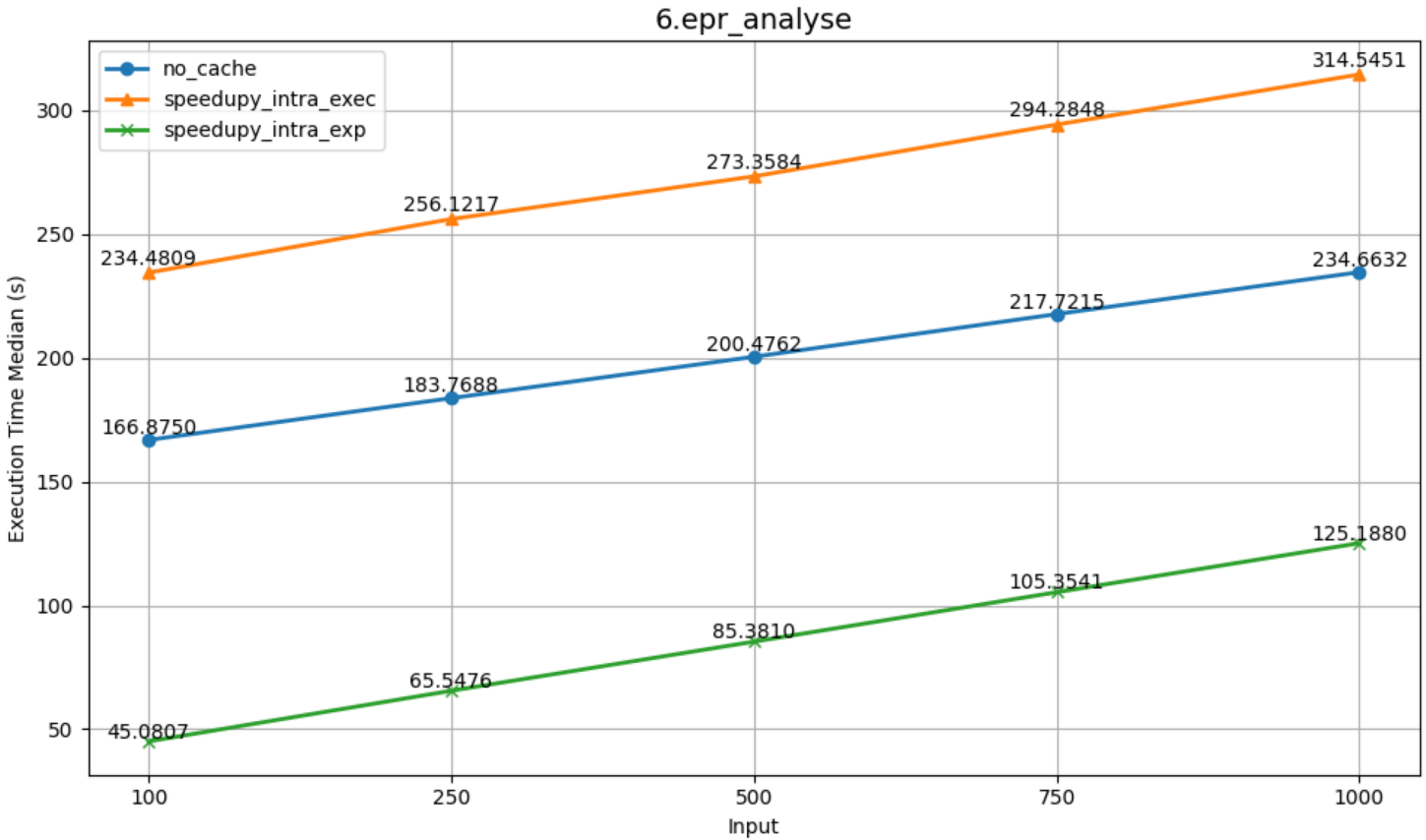

1.belief_propagation
no_cache
speedupy_intra_exec
speedupy_intra_exp
Execution Time Median (s)
Input
0
50
100
150
200
250
300
1000
5500
10000
14500
19000
0.0022
0.0023
0.0023
0.0023
0.0023
240.3583
246.2204
317.8473
329.8588

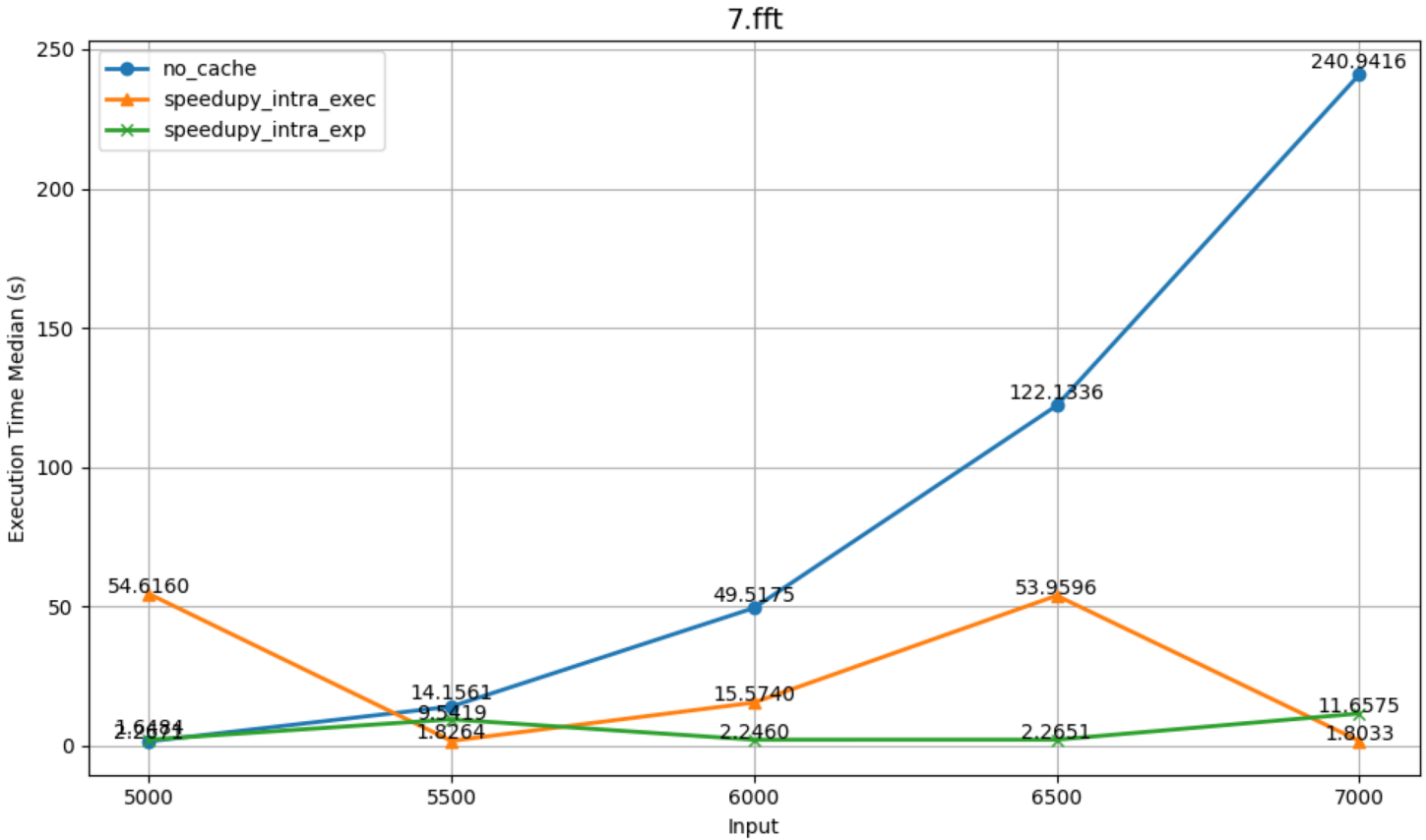

2.cvar
no_cache
speedupy_intra_exec
speedupy_intra_exp
Execution Time Median (s)
Input
1e6
5e6
10e6
50e6
100e6
178.1599
133.6493
81.5772
59.6122
22.5383
13.7639
9.9876
11.3321
2.2182
6.4470
1.1383
0
25
50
75
100
125
150
175

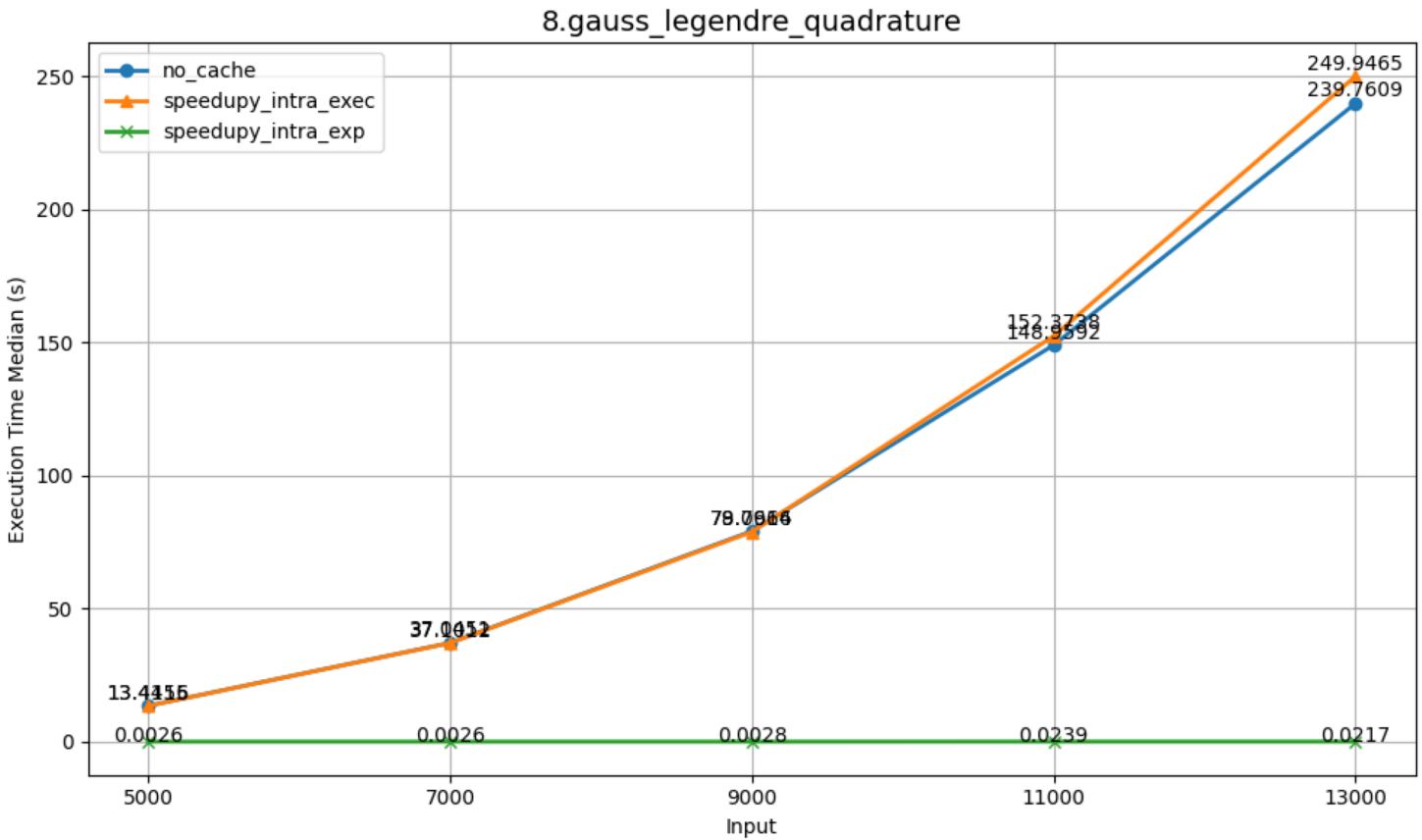

3.vince_sim
no_cache
speedupy_intra_exec
speedupy_intra_exp
Execution Time Median (s)
Input
0
100
200
300
400
1000000
2000000
3000000
4000000
5000000
193.2602
180.8725
253.1773
236.7036
309.4852
288.3230
376.6054
350.7741
451.8578
420.0263
0.7191
0.7728
0.8873
0.9373
1.0330

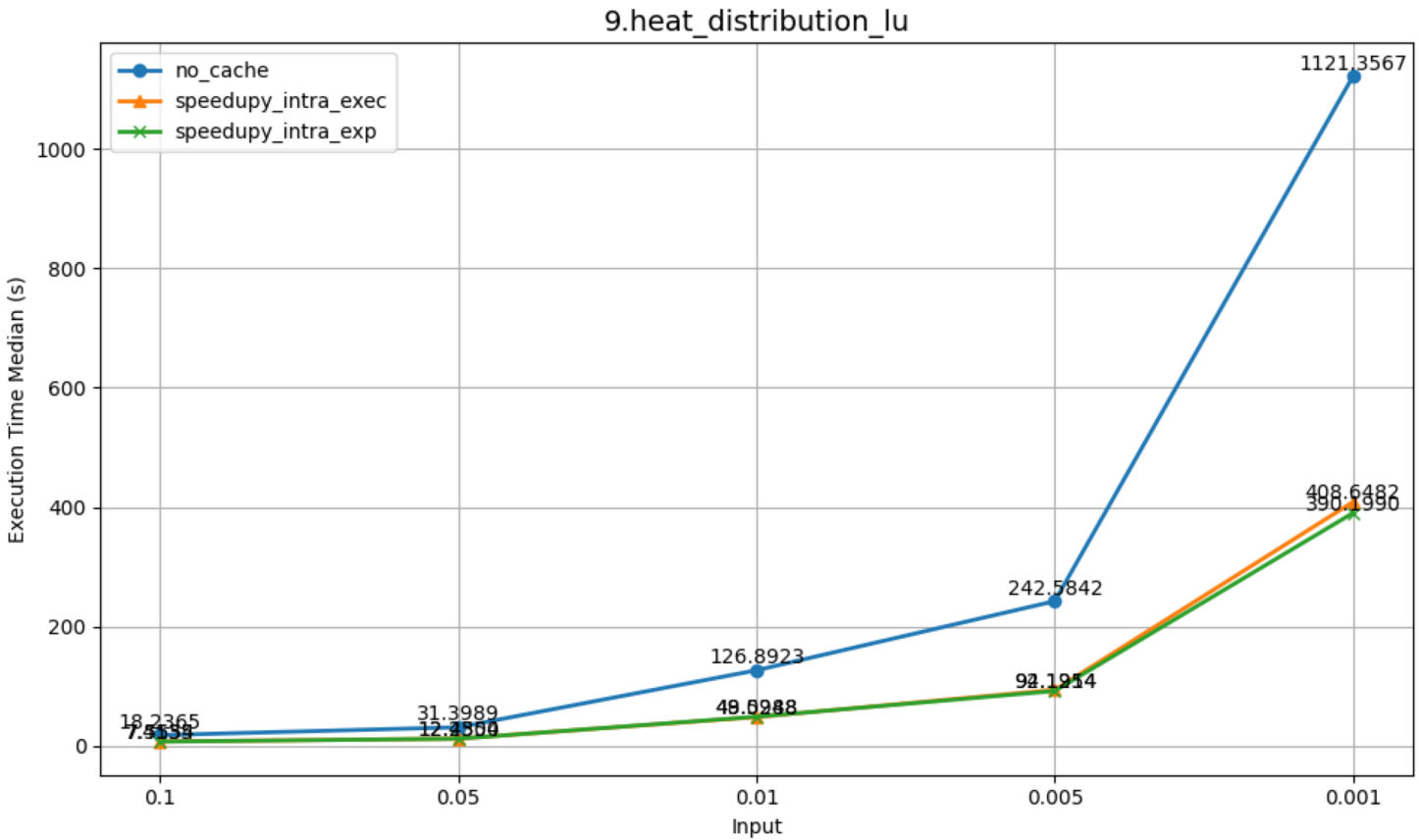

4.basic_spheres
no_cache
speedupy_intra_exec
speedupy_intra_exp
Execution Time Median (s)
Input
100
200
300
400
500
2000000
5000000
8000000
11000000
13000000
524.3182

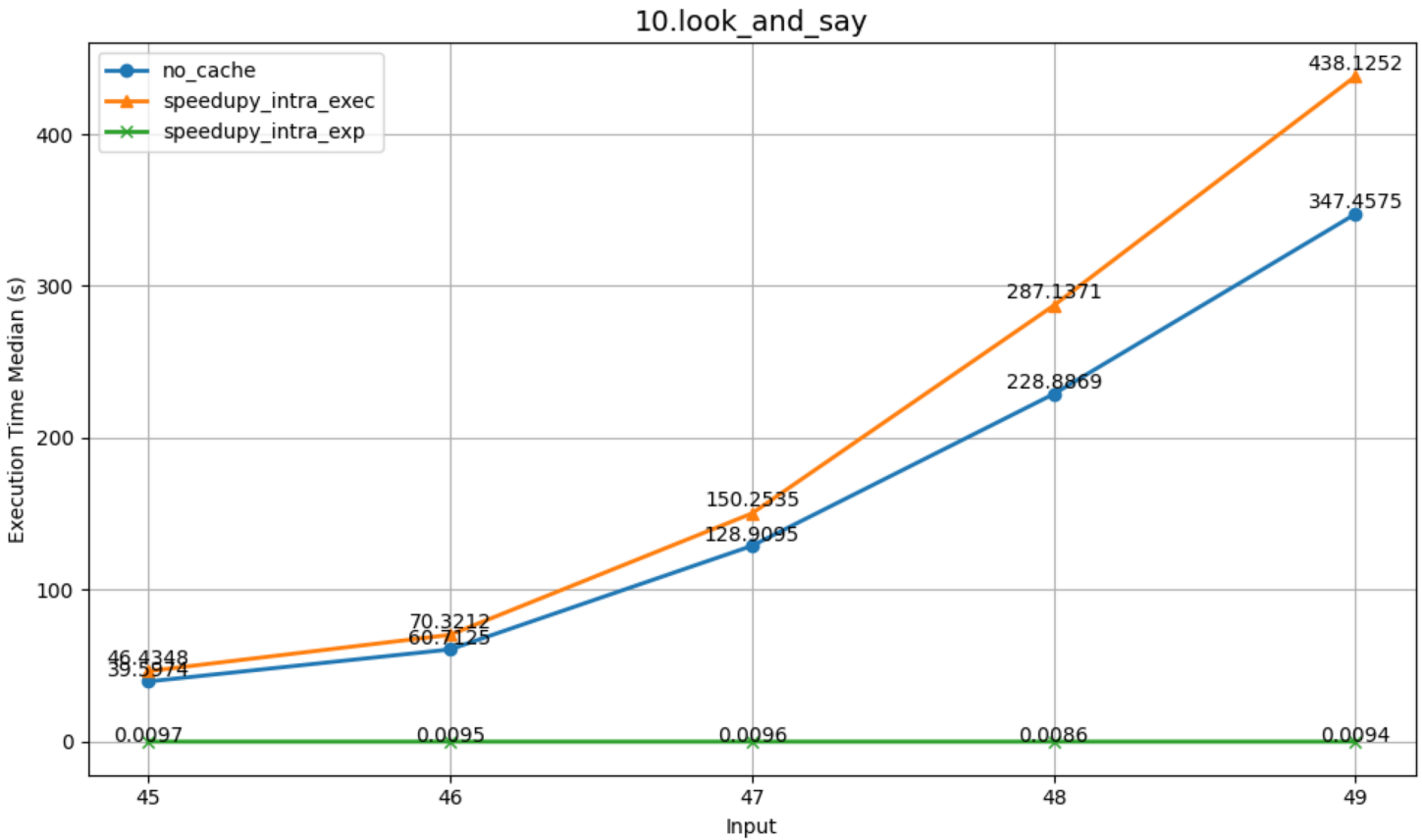

5.walking_colloid
no_cache
speedupy_intra_exec
speedupy_intra_exp
Execution Time Median (s)
Input
-20
-50
-80
-110
-140
20
40
60
80
100
120
140
160
20.1978
23.4360
49.0312
58.6367
55.4036
79.0433
92.0984
86.6272
109.1066
126.7520
119.0018
137.2268
162.1008
152.2068

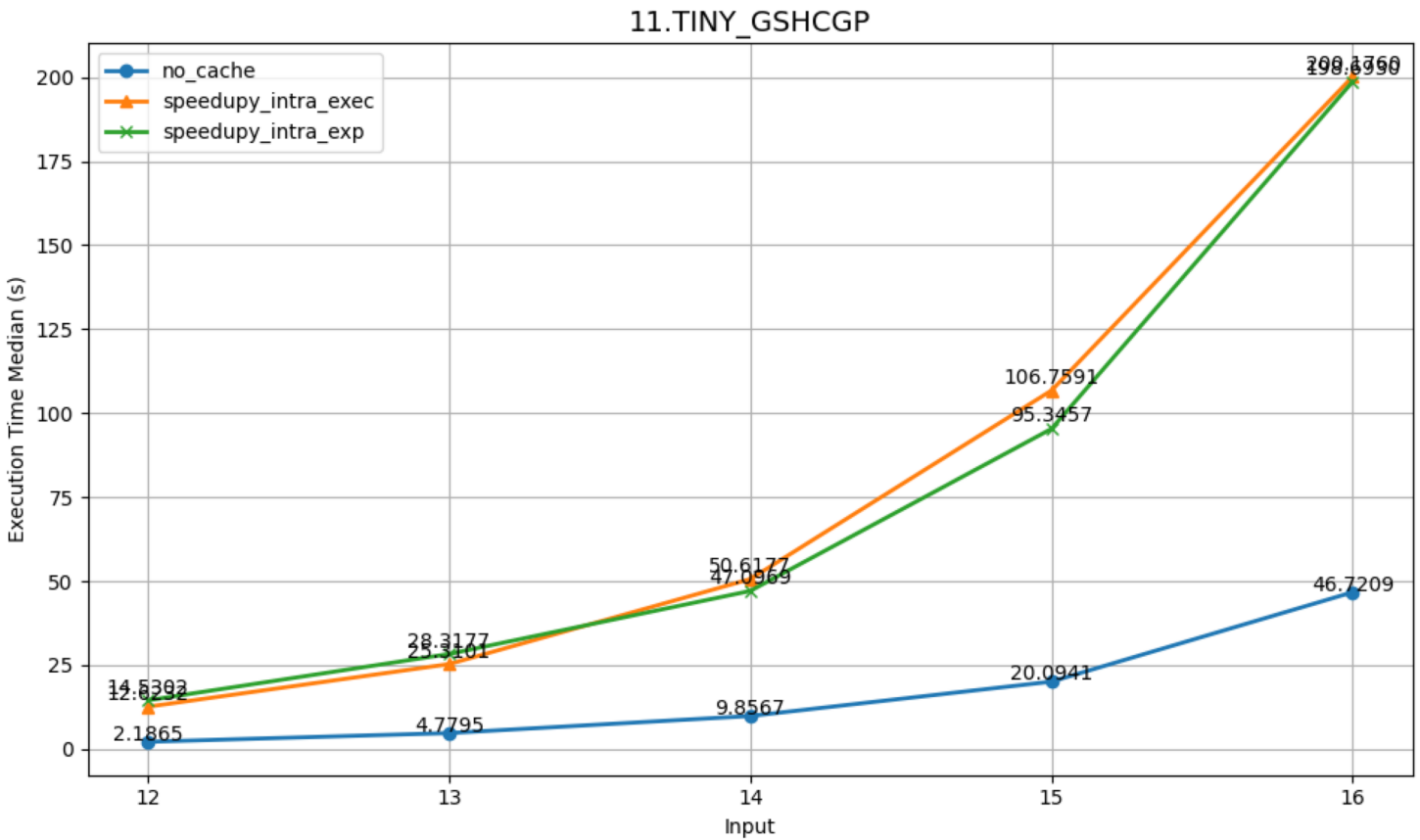

6.epr_analyse
no_cache
speedupy_intra_exec
speedupy_intra_exp
Execution Time Median (s)
Input
300
250
200
150
100
50
100
250
500
750
1000
314.5451
294.2848
273.3584
256.1217
234.4809
234.6632
217.7215
200.4762
183.7688
166.8750
125.1880
105.3541
85.3810
65.5476
45.0807


7.fft
no_cache
speedupy_intra_exec
speedupy_intra_exp
Execution Time Median (s)
Input
250
200
150
100
50
0
5000
5500
6000
6500
7000
240.9416
122.1336
49.5175
14.1561
9.5419
1.6484
2.2671
54.6160
1.8264
15.5740
2.2460
53.9596
2.2651
11.6575
1.8033


8.gauss_legendre_quadrature
no_cache
speedupy_intra_exec
speedupy_intra_exp
Execution Time Median (s)
Input
0
50
100
150
200
250
5000
7000
9000
11000
13000
249.9465
239.7609
0.0026
0.0026
0.0028
0.0239
0.0217


9.heat_distribution_lu
no_cache
speedupy_intra_exec
speedupy_intra_exp
Execution Time Median (s)
Input
0.1
0.05
0.01
0.005
0.001
0
200
400
600
800
1000
1121.3567
242.5842
126.8923
31.3989
18.2365
408.6482


10.look_and_say
no_cache
speedupy_intra_exec
speedupy_intra_exp
Execution Time Median (s)
Input
0
100
200
300
400
45
46
47
48
49
46.4348
39.5974
70.3212
60.7125
150.2535
128.9095
287.1371
228.8869
438.1252
347.4575
0.0097
0.0095
0.0096
0.0086
0.0094


11.TINY_GSHCGP
no_cache
speedupy_intra_exec
speedupy_intra_exp
Execution Time Median (s)
Input
0
25
50
75
100
125
150
175
200
12
13
14
15
16
2.1865
4.7795
9.8567
20.0941
46.7209
106.7591
95.3457
50.6177
47.0969
28.3177
25.3101

Experiment	Input	Time (s)	Best Method
1.belief_propagation	19000	0.0023	speedupy_intra_exp
2.cvar	100e6	22.5383	speedupy_intra_exp
3.vince_sim	5000000	1.0330	speedupy_intra_exp
4.basic_spheres	13000000	524.3182	speedupy_intra_exp
5.walking_colloid	-140	137.2268	no_cache
6.epr_analyse	1000	125.1880	speedupy_intra_exp
7.fft	7000	1.8033	speedupy_intra_exec
8.gauss_legendre_quadrature	13000	0.0217	speedupy_intra_exp
9.heat_distribution_lu	0.001	390.1990	speedupy_intra_exp
10.look_and_say	49	0.0094	speedupy_intra_exp
11.TINY_GSHCGP	16	46.7209	no_cache

Experiment	Input 1	Input 2	Input 3	Input 4	Input 5
1.belief_propagation	0.0022 (speedupy_intra_exp)	0.0023 (speedupy_intra_exp)	0.0023 (speedupy_intra_exp)	0.0023 (speedupy_intra_exp)	0.0023 (speedupy_intra_exp)
2.cvar	0.2265 (speedupy_intra_exp)	1.1383 (speedupy_intra_exp)	2.2182 (speedupy_intra_exp)	11.3321 (speedupy_intra_exp)	22.5383 (speedupy_intra_exp)
3.vince_sim	0.7191 (speedupy_intra_exp)	0.7728 (speedupy_intra_exp)	0.8873 (speedupy_intra_exp)	0.9373 (speedupy_intra_exp)	1.0330 (speedupy_intra_exp)
4.basic_spheres	79.7120 (speedupy_intra_exp)	203.4192 (speedupy_intra_exp)	327.2962 (no_cache)	447.6090 (speedupy_intra_exec)	524.3182 (speedupy_intra_exp)
5.walking_colloid	20.1978 (no_cache)	49.0312 (no_cache)	79.0433 (no_cache)	109.1066 (no_cache)	137.2268 (no_cache)
6.epr_analyse	45.0807 (speedupy_intra_exp)	65.5476 (speedupy_intra_exp)	85.3810 (speedupy_intra_exp)	105.3541 (speedupy_intra_exp)	125.1880 (speedupy_intra_exp)
7.fft	1.6484 (no_cache)	1.8264 (speedupy_intra_exec)	2.2460 (speedupy_intra_exp)	2.2651 (speedupy_intra_exp)	1.8033 (speedupy_intra_exec)
8.gauss_legendre_quadrature	0.0026 (speedupy_intra_exp)	0.0026 (speedupy_intra_exp)	0.0028 (speedupy_intra_exp)	0.0239 (speedupy_intra_exp)	0.0217 (speedupy_intra_exp)
9.heat_distribution_lu	7.4135 (speedupy_intra_exp)	12.2554 (speedupy_intra_exp)	48.5248 (speedupy_intra_exec)	92.1914 (speedupy_intra_exp)	390.1990 (speedupy_intra_exp)
10.look_and_say	0.0097 (speedupy_intra_exp)	0.0095 (speedupy_intra_exp)	0.0096 (speedupy_intra_exp)	0.0086 (speedupy_intra_exp)	0.0094 (speedupy_intra_exp)
11.TINY_GSHCGP	2.1865 (no_cache)	4.7795 (no_cache)	9.8567 (no_cache)	20.0941 (no_cache)	46.7209 (no_cache)

Experiment	Time no-cache	Time SpeeduPy	Speed up
1.belief_propagation	317.3473	0.0023	**139006.77 x**
2.cvar	133.6493	22.5383	**5.93 x**
3.vince_sim	420.0263	1.0330	**406.61 x**
4.basic_spheres	544.6103	524.3182	**1.04 x**
5.walking_colloid	137.2268	152.2068	**0.90 x**
6.epr_analyse	234.6632	125.1880	**1.87 x**
7.fft	240.9416	11.6575	**20.67 x**
8.gauss_legendre_quadrature	239.7609	0.0217	**11028.16 x**
9.heat_distribution_lu	1121.3567	390.1990	**2.87 x**
10.look_and_say	347.4575	0.0094	**36982.68 x**
11.TINY_GSHCGP	46.7209	198.6930	**0.24 x**