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36002306 function calls in 38.675 seconds

Ordered by: cumulative time

ncalls	tottime	percall	cumtime	percall	filename:lineno(function)
1	0.000	0.000	38.675	38.675	{built-in method builtins.exec}
1	0.000	0.000	38.675	38.675	nbbody_1.py:1(<module>)

1	0.473	0.473	38.675	38.675	nbody_1.py:112(nbody)
2000000	35.762	0.000	38.198	0.000	nbody_1.py:44(advance)
20001000	1.430	0.000	1.430	0.000	{method 'append' of 'list' objects}
14000701	1.007	0.000	1.007	0.000	{method 'keys' of 'dict' objects}
100	0.001	0.000	0.002	0.000	{built-in method builtins.print}
100	0.001	0.000	0.001	0.000	nbody_1.py:74(report_energy)
200	0.000	0.000	0.000	0.000	cp1252.py:18(encode)
200	0.000	0.000	0.000	0.000	{built-in method _codecs.charmap_encode}
1	0.000	0.000	0.000	0.000	nbody_1.py:95(offset_momentum)
1	0.000	0.000	0.000	0.000	{method 'disable' of '_lsprof.Profiler' objects}

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306003306 function calls in 128.156 seconds

Ordered by: cumulative time

ncalls	tottime	percall	cumtime	percall	filename:lineno(function)
1	0.000	0.000	128.156	128.156	{built-in method builtins.exec}
1	0.000	0.000	128.156	128.156	nbody_2.py:1(<module>)
1	0.567	0.567	128.156	128.156	nbody_2.py:134(nbody)
2000000	23.123	0.000	127.586	0.000	nbody_2.py:73(advance)
20000000	32.471	0.000	96.753	0.000	nbody_2.py:58(update_vs)
120000000	27.460	0.000	64.282	0.000	nbody_2.py:49(compute_b)
120000000	36.821	0.000	36.821	0.000	nbody_2.py:54(compute_mag)
10000000	3.408	0.000	3.408	0.000	nbody_2.py:67(update_rs)
20001000	3.249	0.000	3.249	0.000	nbody_2.py:45(compute_deltas)
14000701	1.055	0.000	1.055	0.000	{method 'keys' of 'dict' objects}
100	0.001	0.000	0.002	0.000	nbody_2.py:96(report_energy)
100	0.001	0.000	0.001	0.000	{built-in method builtins.print}
200	0.000	0.000	0.000	0.000	cp1252.py:18(encode)
1000	0.000	0.000	0.000	0.000	nbody_2.py:92(compute_energy)
200	0.000	0.000	0.000	0.000	{built-in method _codecs.charmap_encode}
1	0.000	0.000	0.000	0.000	nbody_2.py:117(offset_momentum)
1	0.000	0.000	0.000	0.000	{method 'disable' of '_lsprof.Profiler' objects}

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326004306 function calls in 129.905 seconds

Ordered by: cumulative time

ncalls	tottime	percall	cumtime	percall	filename:lineno(function)
1	0.000	0.000	129.905	129.905	{built-in method builtins.exec}
1	0.000	0.000	129.905	129.905	nbody_3.py:1(<module>)
1	0.594	0.594	129.905	129.905	nbody_3.py:85(nbody)
2000000	25.887	0.000	129.307	0.000	nbody_3.py:27(advance)
20000000	31.604	0.000	94.437	0.000	nbody_3.py:14(update_vs)
120000000	26.944	0.000	62.832	0.000	nbody_3.py:7(compute_b)
120000000	35.888	0.000	35.888	0.000	nbody_3.py:11(compute_mag)
10000000	3.308	0.000	3.308	0.000	nbody_3.py:22(update_rs)
20001000	3.061	0.000	3.061	0.000	nbody_3.py:4(compute_deltas)
20001000	1.504	0.000	1.504	0.000	{method 'append' of 'list' objects}
14000701	1.111	0.000	1.111	0.000	{method 'keys' of 'dict' objects}
100	0.001	0.000	0.002	0.000	nbody_3.py:48(report_energy)
100	0.001	0.000	0.001	0.000	{built-in method builtins.print}
1000	0.000	0.000	0.000	0.000	nbody_3.py:45(compute_energy)
200	0.000	0.000	0.000	0.000	cp1252.py:18(encode)
200	0.000	0.000	0.000	0.000	{built-in method _codecs.charmap_encode}
1	0.000	0.000	0.000	0.000	nbody_3.py:68(offset_momentum)
1	0.000	0.000	0.000	0.000	{method 'disable' of '_lsprof.Profiler' objects}

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294002707 function calls in 116.639 seconds

Ordered by: cumulative time

ncalls	tottime	percall	cumtime	percall	filename:lineno(function)
1	0.000	0.000	116.639	116.639	{built-in method builtins.exec}
1	0.000	0.000	116.639	116.639	nbody_4.py:1(<module>)
1	0.494	0.494	116.639	116.639	nbody_4.py:128(nbody)
2000000	15.850	0.000	116.142	0.000	nbody_4.py:75(advance)
20000000	31.305	0.000	93.785	0.000	nbody_4.py:60(update_vs)
120000000	26.623	0.000	62.480	0.000	nbody_4.py:51(compute_b)
120000000	35.857	0.000	35.857	0.000	nbody_4.py:56(compute_mag)
10000000	3.315	0.000	3.315	0.000	nbody_4.py:69(update_rs)
20001000	3.032	0.000	3.032	0.000	nbody_4.py:47(compute_deltas)
2000102	0.160	0.000	0.160	0.000	{method 'keys' of 'dict' objects}
100	0.001	0.000	0.001	0.000	{built-in method builtins.print}
100	0.001	0.000	0.001	0.000	nbody_4.py:94(report_energy)

200	0.000	0.000	0.000	0.000	cp1252.py:18(encode)
1000	0.000	0.000	0.000	0.000	nbody_4.py:90(compute_energy)
200	0.000	0.000	0.000	0.000	{built-in method codecs.charmap_encode}
1	0.000	0.000	0.000	0.000	nbody_4.py:111(offset_momentum)
1	0.000	0.000	0.000	0.000	{method 'disable' of '_lsprof.Profiler' objects}

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-0.1690918027628462
-0.16908292959396737
-0.16903991544250532
-0.16900522540599103
-0.16903656773674477
-0.16909410318891663
-0.16907846621163136
-0.16903274720862022
-0.16900284987917757
-0.1690462807512226
-0.16909717678664093
-0.1690729358867949
-0.16902628585280982

4000707 function calls in 25.041 seconds

Ordered by: cumulative time

ncalls	tottime	percall	cumtime	percall	filename:lineno(function)
1	0.000	0.000	25.041	25.041	{built-in method builtins.exec}
1	0.000	0.000	25.041	25.041	nbody_opt.py:1(<module>)
1	0.416	0.416	25.041	25.041	nbody_opt.py:68(nbody)
2000000	24.487	0.000	24.623	0.000	nbody_opt.py:6(advance)
2000102	0.136	0.000	0.136	0.000	{method 'keys' of 'dict' objects}
100	0.001	0.000	0.001	0.000	{built-in method builtins.print}
100	0.001	0.000	0.001	0.000	nbody_opt.py:33(report_energy)
200	0.000	0.000	0.000	0.000	cp1252.py:18(encode)
200	0.000	0.000	0.000	0.000	{built-in method _codecs.charmap_encode}
1	0.000	0.000	0.000	0.000	nbody_opt.py:51(offset_momentum)
1	0.000	0.000	0.000	0.000	{method 'disable' of '_lsprof.Profiler' objects}