

Overview of whole program execution metrics											
Number of threads	1	2	4	6	8	10	12	14	16	18	20
Elapsed time (sec)	2.88	2.09	1.83	1.57	1.27	1.10	0.94	0.86	0.77	0.72	0.64
Speedup	1.00	1.38	1.58	1.84	2.26	2.63	3.08	3.35	3.77	4.03	4.49
Efficiency	1.00	0.69	0.39	0.31	0.28	0.26	0.26	0.24	0.24	0.22	0.22

Table 1: Analysis done on Sun Jun 1 01:01:20 PM CEST 2025, par4104

Overview of the Efficiency metrics in parallel fraction, $\phi=99.17\%$											
Number of threads	1	2	4	6	8	10	12	14	16	18	20
Global efficiency	100.00%	69.11%	39.63%	30.83%	28.54%	26.61%	26.15%	24.50%	24.17%	23.04%	23.20%
Parallelization strategy efficiency	100.00%	69.13%	39.71%	31.43%	29.92%	27.91%	27.94%	26.45%	26.36%	25.37%	25.66%
Load balancing	100.00%	69.14%	39.72%	31.45%	29.95%	27.93%	27.98%	26.49%	26.42%	25.44%	25.73%
In execution efficiency	100.00%	99.99%	99.96%	99.94%	99.92%	99.91%	99.87%	99.83%	99.77%	99.74%	99.72%
Scalability for computation tasks	100.00%	99.97%	99.81%	98.11%	95.39%	95.34%	93.60%	92.65%	91.69%	90.84%	90.42%
IPC scalability	100.00%	100.00%	100.00%	100.02%	100.04%	100.03%	100.01%	100.04%	99.92%	99.61%	99.68%
Instruction scalability	100.00%	100.00%	100.00%	100.00%	100.00%	99.99%	99.99%	99.99%	99.99%	99.99%	99.99%
Frequency scalability	100.00%	99.96%	99.81%	98.09%	95.36%	95.31%	93.60%	92.62%	91.77%	91.20%	90.72%

Table 2: Analysis done on Sun Jun 1 01:01:20 PM CEST 2025, par4104

Overheads in executing implicit tasks											
Number of threads	1	2	4	6	8	10	12	14	16	18	20
Number of implicit tasks per thread (average us)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Useful duration for implicit tasks (average us)	2859094.98	1430039.71	716156.65	485719.61	374642.95	299894.07	254556.38	220425.89	194896.95	174857.19	158100.94
Load balancing for implicit tasks	1.0	0.69	0.4	0.31	0.3	0.28	0.28	0.26	0.26	0.25	0.26
Time in synchronization implicit tasks (average us)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time in fork/join implicit tasks (average us)	27.58	199.51	1537442.66	1506537.79	1230902.6	1057987.36	897175.55	821773.87	728985.8	680813.73	608656.42

Table 3: Analysis done on Sun Jun 1 01:01:20 PM CEST 2025, par4104