| Overview of whole program execution metrics |      |      |      |      |      |      |      |      |      |
|---|------|------|------|------|------|------|------|------|------|
| Number of processors                        | 1    | 2    | 4    | 6    | 8    | 10   | 12   | 14   | 16   |
| Elapsed time (sec)                          | 0.19 | 0.14 | 0.10 | 0.09 | 0.09 | 0.09 | 0.08 | 0.09 | 0.09 |
| Speedup                                     | 1.00 | 1.38 | 1.89 | 2.07 | 2.19 | 2.23 | 2.24 | 2.22 | 2.15 |
| Efficiency                                  | 1.00 | 0.69 | 0.47 | 0.35 | 0.27 | 0.22 | 0.19 | 0.16 | 0.13 |

Table 1: Analysis done on Thu Nov 24 01:14:33 AM CET 2022, par 2107  $\,$ 

| Overview of the Efficiency metrics in parallel fraction, $\phi$ =88.06% |         |         |         |         |         |         |         |         |         |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Number of processors  | 1       | 2       | 4       | 6       | 8       | 10      | 12      | 14      | 16      |
| Global efficiency   | 93.71%  | 68.38%  | 50.79%  | 38.79%  | 31.31%  | 25.81%  | 21.76%  | 18.38%  | 15.34%  |
| Parallelization strategy efficiency                                     | 93.71%  | 73.88%  | 60.08%  | 50.92%  | 41.22%  | 34.54%  | 29.02%  | 24.77%  | 20.60%  |
| Load balancing  | 100.00% | 98.45%  | 98.45%  | 97.28%  | 92.48%  | 92.97%  | 85.79%  | 91.36%  | 92.48%  |
| In execution efficiency   | 93.71%  | 75.04%  | 61.02%  | 52.35%  | 44.57%  | 37.15%  | 33.83%  | 27.11%  | 22.27%  |
| Scalability for computation tasks                                       | 100.00% | 92.55%  | 84.53%  | 76.17%  | 75.96%  | 74.73%  | 74.97%  | 74.20%  | 74.49%  |
| IPC scalability   | 100.00% | 86.91%  | 80.14%  | 76.73%  | 75.95%  | 76.94%  | 77.48%  | 77.22%  | 77.63%  |
| Instruction scalability   | 100.00% | 106.80% | 106.80% | 106.79% | 106.76% | 106.73% | 106.72% | 106.69% | 106.72% |
| Frequency scalability   | 100.00% | 99.70%  | 98.76%  | 92.96%  | 93.67%  | 91.00%  | 90.67%  | 90.07%  | 89.91%  |

Table 2: Analysis done on Thu Nov 24 01:14:33 AM CET 2022, par2107

| Statistics about explicit tasks in parallel fraction |         |         |         |         |         |         |         |         |         |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Number of processors                                 | 1       | 2       | 4       | 6       | 8       | 10      | 12      | 14      | 16      |
| Number of explicit tasks executed (total)            | 25557.0 | 25557.0 | 25557.0 | 25557.0 | 25557.0 | 25557.0 | 25557.0 | 25557.0 | 25557.0 |
| LB (number of explicit tasks executed)               | 1.0     | 1.0     | 1.0     | 0.96    | 0.97    | 0.94    | 0.96    | 0.96    | 0.97    |
| LB (time executing explicit tasks)                   | 1.0     | 0.99    | 0.99    | 0.98    | 0.98    | 0.96    | 0.97    | 0.99    | 0.98    |
| Time per explicit task (average us)                  | 5.63    | 7.54    | 9.58    | 12.19   | 14.7    | 17.66   | 20.54   | 24.14   | 28.67   |
| Overhead per explicit task (synch %)                 | 2.77    | 20.31   | 30.38   | 36.52   | 43.66   | 48.01   | 52.42   | 54.98   | 57.52   |
| Overhead per explicit task (sched %)                 | 4.53    | 10.76   | 19.94   | 27.11   | 34.64   | 40.05   | 44.99   | 49.03   | 53.19   |
| Number of taskwait/taskgroup (total)                 | 9366.0  | 9366.0  | 9366.0  | 9366.0  | 9366.0  | 9366.0  | 9366.0  | 9366.0  | 9366.0  |

Table 3: Analysis done on Thu Nov 24 01:14:33 AM CET 2022, par2107