German Razo

CSCI551

Report

ssh-agent bash

ssh-add ~/.ssh/id\_rsa

N = 43804687

ABRTE = 4.9944420817042034887e-15

Table of timings for all runs

|  |  |  |  |
| --- | --- | --- | --- |
|  | Times, n = 43804687  Runs | | |
|  | 1 | 2 | 3 |
| Cores |  |  |  |
| 2 | 7.048295 | 7.049051 | 7.072790 |
| 8 | 1.783209 | 1.811314 | 1.798908 |
| 14 | 1.050605 | 1.022817 | 1.023119 |
| 20 |  |  |  |

Speedups for each configuration

|  |  |  |  |
| --- | --- | --- | --- |
|  | Times, n = 43804687 | | |
|  | 1 | 2 | 3 |
| Cores |  |  |  |
| 2 |  |  |  |
| 8 |  |  |  |
| 14 |  |  |  |
| 20 |  |  |  |

Efficiencies for each configuration

|  |  |  |  |
| --- | --- | --- | --- |
|  | Times, n = 42000000 | | |
|  | 1 | 2 | 3 |
| Cores |  |  |  |
| 2 |  |  |  |
| 8 |  |  |  |
| 14 |  |  |  |
| 20 |  |  |  |

Table of minimum times with estimated integral, absolute relative true error,

And calculated speedup and efficiency.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Minimum time | Estimated integral | ABSTRE | Calculated Speedup | Efficiency |
| 2 |  |  |  |  |  |
| 8 |  |  |  |  |  |
| 14 |  |  |  |  |  |
| 20 |  |  |  |  |  |

2Cores

1Run:

1. 7.048295 ABSRTE 5.5616483870217496598e-15 Integral: 4.7540192288588e+03
2. 7.063494 ABSRTE 5.5616483870217496598e-15 Integral 4.7540192288588e+03
3. 7.080439 ABSRTE 5.5616483870217496598e-15 Integral 4.7540192288588e+03

2Run

1. 7.088437 ABSRTE 5.5616483870217496598e-15 Integral 4.7540192288588e+03
2. 7.076735 ABSRTE 5.5616483870217496598e-15 4.7540192288588e+03
3. 7.049051 ABSRTE  5.5616483870217496598e-15 Integral 4.7540192288588e+03

3Run

1. 7.123459 ABSRTE 5.5616483870217496598e-15 Integral 4.7540192288588e+03
2. 7.196341 ABSRTE 5.5616483870217496598e-15 Integral 4.7540192288588e+03
3. 7.072790 ABSRTE 5.5616483870217496598e-15 Integral 4.7540192288588e+03

8Cores

1Run

1. 1.801763 ABSRTE 5.5475429601273245164e-15 Integral 4.7540192288588e+03
2. 1.788313 ABSRTE 5.5475429601273245164e-15 Integral 4.7540192288588e+03
3. 1.783209 ABSRTE 5.5475429601273245164e-15 Integral4.7540192288588e+03

2Run

1. 1.815304 ABSRTE 5.5475429601273245164e-15 Integral 4.7540192288588e+03
2. 1.811314 ABSRTE  5.5475429601273245164e-15 Integral 4.7540192288588e+03
3. 1.881769 ABSRTE 5.5475429601273245164e-15 Integral 4.7540192288588e+03

3Run

1. 1.798908 ABSRTE 5.5475429601273245164e-15 Integral 4.7540192288588e+03
2. 1.819347 ABSRTE 5.5475429601273245164e-15 Integral 4.7540192288588e+03
3. 2.081625 ABSRTE 5.5475429601273245164e-15 Integral 4.7540192288588e+03

14Cores

1Run

1. 1.050605 ABSRTE 5.5485705077818852883e-15 Integral 4.7540192288588e+03
2. 1.063449 ABSRTE 5.5485705077818852883e-15 Integral 4.7540192288588e+03
3. 1.054387 ABSRTE 5.5485705077818852883e-15 Integral 4.7540192288588e+03

2Run

1. 1.062422 ABSRTE 5.5485705077818852883e-15 Integral 4.7540192288588e+03
2. 1.022817 ABSRTE 5.5485705077818852883e-15 Integral 4.7540192288588e+03
3. 1.040442 ABSRTE  5.5485705077818852883e-15 Integral 4.7540192288588e+03

3Run

1. 1.025361 ABSRTE 5.5485705077818852883e-15 Integral 4.7540192288588e+03
2. 1.060049 ABSRTE 5.5485705077818852883e-15 Integral 4.7540192288588e+03
3. 1.023119 ABSRTE 5.5485705077818852883e-15 Integral 4.7540192288588e+03

20Cores

1Run

1. 0.760316 ABSRTE 5.5593130514432024507e-15 Integral 4.7540192288588e+03
2. 0.773993 ABSRTE 5.5593130514432024507e-15 Integral 4.7540192288588e+03
3. 0.763347 ABSRTE 5.5593130514432024507e-15 Integral 4.7540192288588e+03

2Run