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**

1 Run

1. Time: 14.780935, ABSRE 5.0344230268089317103e-15 Integral: 4.7540192288588e+03
2. Time: 19.625122, ABSRE 5.0344230268089317103e-15 Integral: 4.7540192288588e+03
3. Time: 14.774259, ABSRE 5.0344230268089317103e-15 Integral: 4.7540192288588e+03

2Run

1. Time: 14.781535, ABSRE 5.0344230268089317103e-15 Integral: 4.7540192288588e+03
2. Time: 14.778778, ABSRE 5.0344230268089317103e-15 Integral: 4.7540192288588e+03
3. Time: 14.785097, ABSRE 5.0344230268089317103e-15 Integral: 4.7540192288588e+03

3Run

1. Time: 14.784493, ABSRE 5.0344230268089317103e-15 Integral: 4.7540192288588e+03
2. Time: 14.777839, ABSRE 5.0344230268089317103e-15 Integral: 4.7540192288588e+03
3. Time: 14.777839, ABSRE 5.0344230268089317103e-15 Integral: 4.7540192288588e+03

**8Cores**

1Run

1. Time: 3.739483, ABSRE 5.0129379394862973857e-15 Integral: 4.7540192288588e+03
2. Time: 3.748028, ABSRE 5.0129379394862973857e-15 Integral: 4.7540192288588e+03
3. Time: 3.736527, ABSRE 5.0129379394862973857e-15 Integral: 4.7540192288588e+03

2Run

1. Time: 3.731128, ABSRE 5.0129379394862973857e-15 Integral: 4.7540192288588e+03
2. Time: 3.712802, ABSRE 5.0129379394862973857e-15 Integral: 4.7540192288588e+03
3. Time: 3.719669, ABSRE 5.0129379394862973857e-15 Integral: 4.7540192288588e+03

3Run

1. Time: 3.725332, ABSRE 5.0129379394862973857e-15 Integral: 4.7540192288588e+03
2. Time: 3.734192, ABSRE 5.0129379394862973857e-15 Integral: 4.7540192288588e+03
3. Time: 3.750579, ABSRE 5.0129379394862973857e-15 Integral: 4.7540192288588e+03

**14Cores**

1Run

1. Time: 2.182241, ABSRE 5.0439511959694043240e-15 Integral: 4.7540192288588e+03
2. Time: 2.126143, ABSRE 5.0439511959694043240e-15 Integral: 4.7540192288588e+03
3. Time: 2.159059, ABSRE 5.0439511959694043240e-15 Integral: 4.7540192288588e+03

2Run

1. Time: 3.027148, ABSRE 5.0439511959694043240e-15 Integral: 4.7540192288588e+03
2. Time: 2.185688, ABSRE 5.0439511959694043240e-15 Integral: 4.7540192288588e+03
3. Time: 2.271023, ABSRE 5.0439511959694043240e-15 Integral: 4.7540192288588e+03

3Run

1. Time: 2.485289, ABSRE5.0439511959694043240e-15 Integral: 4.7540192288588e+03
2. Time: 2.180086, ABSRE 5.0439511959694043240e-15 Integral: 4.7540192288588e+03
3. Time: 2.129180, ABSRE 5.0439511959694043240e-15 Integral: 4.7540192288588e+03

**20Cores**

1Run

1. Time: 2.094244, ABSRE 5.1042962673190642098e-15 Integral: 4.7540192288588e+03
2. Time: 1.635604, ABSRE 5.0844926216129838755e-15 Integral: 4.7540192288588e+03
3. Time: 1.496424 ABSRE 5.1042962673190642098e-15 Integral: 4.7540192288588e+03

2Run

1. Time: 1.526945, ABSRE 5.1042962673190642098e-15Integral: 4.7540192288588e+03
2. Time: 1.516706, ABSRE 5.1042962673190642098e-15 Integral: 4.7540192288588e+03
3. Time:1.548955 ABSRE 5.1042962673190642098e-15 Integral: 4.7540192288588e+03

3Run

1. Time: 2.156127, ABSRE 5.1096208324381518468e-15 Integral: 4.7540192288588e+03
2. Time: 2.131676, ABSRE 5.1096208324381518468e-15 Integral: 4.7540192288588e+03
3. Time: 2.180545, ABSRE 5.1096208324381518468e-15 Integral: 4.7540192288588e+03