Google Drive



Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science)

James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan

Download now

Click here if your download doesn"t start automatically

Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science)

James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan

Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan

In this work, the unique power measurement capabilities of the Cray XT architecture were exploited to gain an understanding of power and energy use, and the effects of tuning both CPU and network bandwidth. Modifications were made to deterministically halt cores when idle. Additionally, capabilities were added to alter operating P-state. At the application level, an understanding of the power requirements of a range of important DOE/NNSA production scientific computing applications running at large scale is gained by simultaneously collecting current and voltage measurements on the hosting nodes. The effects of both CPU and network bandwidth tuning are examined, and energy savings opportunities without impact on run-time performance are demonstrated. This research suggests that next-generation large-scale platforms should not only approach CPU frequency scaling differently, but could also benefit from the capability to tune other platform components to achieve more energy-efficient performance.

Download Energy-Efficient High Performance Computing: Measu ...pdf

Read Online Energy-Efficient High Performance Computing: Mea ...pdf

Download and Read Free Online Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan

---

From reader reviews:

Janice Saucier:

As people who live in typically the modest era should be up-date about what going on or facts even knowledge to make these people keep up with the era that is certainly always change and make progress. Some of you maybe may update themselves by examining books. It is a good choice for you personally but the problems coming to you actually is you don't know which one you should start with. This Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) is our recommendation so you keep up with the world. Why, since this book serves what you want and wish in this era.

Kathryn Botello:

Playing with family in a park, coming to see the marine world or hanging out with pals is thing that usually you will have done when you have spare time, subsequently why you don't try thing that really opposite from that. One particular activity that make you not sensation tired but still relaxing, trilling like on roller coaster you already been ride on and with addition details. Even you love Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science), you could enjoy both. It is fine combination right, you still would like to miss it? What kind of hang type is it? Oh can occur its mind hangout guys. What? Still don't buy it, oh come on its known as reading friends.

Curt Hall:

What is your hobby? Have you heard this question when you got learners? We believe that that problem was given by teacher with their students. Many kinds of hobby, Every individual has different hobby. Therefore you know that little person like reading or as looking at become their hobby. You have to know that reading is very important and book as to be the matter. Book is important thing to increase you knowledge, except your teacher or lecturer. You see good news or update with regards to something by book. Amount types of books that can you take to be your object. One of them is Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science).

Thomas Obrien:

Some individuals said that they feel fed up when they reading a guide. They are directly felt the item when they get a half parts of the book. You can choose typically the book Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) to make your personal reading is interesting. Your own skill of reading talent is developing when you similar to reading. Try to choose basic book to make you enjoy you just read it and mingle the impression about book and examining especially. It is to be first opinion for you to like to start a book and go through it. Beside that the reserve Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer

Science) can to be your brand new friend when you're sense alone and confuse with the information must you're doing of that time.

Download and Read Online Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan #0DB2L4NIFQO

Read Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) by James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan for online ebook

Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) by James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) by James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan books to read online.

Online Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) by James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan ebook PDF download

Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) by James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan Doc

Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) by James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan Mobipocket

Energy-Efficient High Performance Computing: Measurement and Tuning (SpringerBriefs in Computer Science) by James H. Laros III, Kevin Pedretti, Suzanne M. Kelly, Wei Shu, Kurt Ferreira, John Van Dyke, Courtenay Vaughan EPub