

Effects of Ordering Strategies and Programming Paradigms on Sparse Matrix Computations



Effects of Ordering Strategies
and Programming Paradigms
on Sparse Matrix Computations

NASA Technical Reports Server
(NTRS), et al., Leonid Oliker

Filesize: 4.19 MB

Reviews

This sort of publication is everything and made me seeking forward and much more. Better then never, though i am quite late in start reading this one. I am easily could possibly get a delight of reading through a created pdf.

(Quinton Balistreri)

EFFECTS OF ORDERING STRATEGIES AND PROGRAMMING PARADIGMS ON SPARSE MATRIX COMPUTATIONS

[DOWNLOAD PDF](#)

To get **Effects of Ordering Strategies and Programming Paradigms on Sparse Matrix Computations** eBook, you should refer to the link below and download the file or have access to additional information which are related to EFFECTS OF ORDERING STRATEGIES AND PROGRAMMING PARADIGMS ON SPARSE MATRIX COMPUTATIONS book.

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 24 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. The Conjugate Gradient (CG) algorithm is perhaps the best-known iterative technique to solve sparse linear systems that are symmetric and positive definite. For systems that are ill-conditioned, it is often necessary to use a preconditioning technique. In this paper, we investigate the effects of various ordering and partitioning strategies on the performance of parallel CG and ILU(O) preconditioned CG (PCG) using different programming paradigms and architectures. Results show that for this class of applications: ordering significantly improves overall performance on both distributed and distributed shared-memory systems, that cache reuse may be more important than reducing communication, that it is possible to achieve message-passing performance using shared-memory constructs through careful data ordering and distribution, and that a hybrid MPIOpenMP paradigm increases programming complexity with little performance gains. A implementation of CG on the Cray MTA does not require special ordering or partitioning to obtain high efficiency and scalability, giving it a distinct advantage for adaptive applications; however, it shows limited scalability for PCG due to a lack of thread level parallelism. This item ships from La Vergne, TN. Paperback.

- [Read Effects of Ordering Strategies and Programming Paradigms on Sparse Matrix Computations Online](#)
- [Download PDF Effects of Ordering Strategies and Programming Paradigms on Sparse Matrix Computations](#)
- [Download ePUB Effects of Ordering Strategies and Programming Paradigms on Sparse Matrix Computations](#)

Other Books



[PDF] God Loves You. Chester Blue

Click the web link below to read "God Loves You. Chester Blue" PDF file.

[Read eBook »](#)



[PDF] Good Night, Zombie Scary Tales

Click the web link below to read "Good Night, Zombie Scary Tales" PDF file.

[Read eBook »](#)



[PDF] Yearbook Volume 15

Click the web link below to read "Yearbook Volume 15" PDF file.

[Read eBook »](#)



[PDF] Kindle Fire Tips And Tricks How To Unlock The True Power Inside Your Kindle Fire

Click the web link below to read "Kindle Fire Tips And Tricks How To Unlock The True Power Inside Your Kindle Fire" PDF file.

[Read eBook »](#)



[PDF] Absolutely Lucy #4 Lucy on the Ball A Stepping Stone BookTM

Click the web link below to read "Absolutely Lucy #4 Lucy on the Ball A Stepping Stone BookTM" PDF file.

[Read eBook »](#)



[PDF] Viking Ships At Sunrise Magic Tree House, No. 15

Click the web link below to read "Viking Ships At Sunrise Magic Tree House, No. 15" PDF file.

[Read eBook »](#)



[PDF] Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1625) (Paperback)

Access the web link under to download "Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1625) (Paperback)" PDF file.

[Read PDF »](#)



[PDF] Dont Line Their Pockets With Gold Line Your Own A Small How To Book on Living Large

Access the web link under to download "Dont Line Their Pockets With Gold Line Your Own A Small How To Book on Living Large" PDF file.

[Read PDF »](#)



[PDF] Molly on the Shore, BFMS 1 Study score

Access the web link under to download "Molly on the Shore, BFMS 1 Study score" PDF file.

[Read PDF »](#)



[PDF] The Preschool Inclusion Toolbox: How to Build and Lead a High-Quality Program (Paperback)

Access the web link under to download "The Preschool Inclusion Toolbox: How to Build and Lead a High-Quality Program (Paperback)" PDF file.

[Read PDF »](#)



[PDF] Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications . (Paperback)

Access the web link under to download "Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications . (Paperback)" PDF file.

[Read PDF »](#)



[PDF] The Pickthorn Chronicles

Access the web link under to download "The Pickthorn Chronicles" PDF file.

[Read PDF »](#)