ICASE INTERIM REPORT 3

A BIBLIOGRAPHY ON PARALLEL AND VECTOR NUMERICAL ALGORITHMS

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NASA Contract No. NAS1-18107
July 1987

INSTITUTE FOR COMPUTER APPLICATIONS IN SCIENCE AND ENGINEERING
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Operated by the Universities Space Research Association
ICASE has introduced a new report series to be called ICASE Interim Reports. The series will complement the more familiar blue ICASE reports that have been distributed for many years. The blue reports are intended as preprints of research that has been submitted for publication in either refereed journals or conference proceedings. In general, the green Interim Report will not be submitted for publication, at least not in its printed form. It will be used for research that has reached a certain level of maturity but needs additional refinement, for technical reviews or position statements, for bibliographies, and for computer software. The Interim Reports will receive the same distribution as the ICASE Reports. They will be available upon request in the future, and they may be referenced in other publications.

Robert G. Voigt
Director
A Bibliography on Parallel and Vector Numerical Algorithms

Since parallel and vector computation is expanding rapidly, we hope that the references we have collected over the years will be of some value to researchers entering the field. Although we make the usual caveat that we do not claim completeness, we have in fact listed everything of which we are aware. Our apologies in advance to authors whose works we have missed. (Please send us your references.) It is our intent to keep this bibliography up to date and available on-line.

Although this is a bibliography on numerical methods, we have included a number of other references on machine architecture, programming languages, and other topics of interest to scientific computing.

Certain conference proceedings and anthologies which have been published in book form we list under the name of the editor (or editors) and then list individual articles with a pointer back to the whole volume; for example, the reference


refers to the article by Brandt in the volume listed under Schultz [1981].


This work was supported under the National Aeronautics and Space Administration under NASA Contract No. NAS1-18107 while the authors were in residence at the Institute for Computer Applications in Science and Engineering (ICASE), NASA Langley Research Center, Hampton, VA 23665.


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Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Grosch, C. [1979]. "Performance Analysis of Tridiagonal Equation Solvers on Array Computers," Department of Mathematical and Computing Sciences Technical Report No. TR 79-4, Old Dominion University, Norfolk, VA.


Bibliography


Bibliography


Hayes, L. and Devloo, P. [1984]. "An Overlapping Block Iterative Scheme for Finite Element Methods," Department of Aerospace Engineering and Engineering Mechanics, University of Texas at Austin.


Bibliography


Bibliography


Hockney, R. [1985]. "\(\langle r_{\infty}, n_{1/2} s_{1/2} \rangle\) Measurements on the 2-CPU CRAY X-MP," Parallel Computing 2, pp. 1-14.
Bibliography


Holter, B. [1987]. "Vectorized Multigrid Solvers for the Two-Dimensional Diffusion Equation," Proceedings of the Third Copper Mountain Conference on Multigrid Methods, April 6-10, Copper Mountain, CO.


Bibliography


Kamowitz, D. [1987]. "Experimental Results for Multigrid and Transport Problems," Proceedings of the Third Copper Mountain Conference on Multigrid Methods, April 6-10, Copper Mountain, CO.


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Mierendorff, H. [1987]. "Parallelization of Multigrid Methods with Local Refinements for a Class of Non-Shared Memory Systems," Proceedings of the Third Copper Mountain Conference on Multigrid Methods, April 6-10, Copper Mountain, CO.

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Bibliography


Rice, J. [1985]. "Problems to Test Parallel and Vector Languages," Department of Computer Science Report No. CSD-TR 516, Purdue University, May.


Bibliography


Bibliography


Saad, Y. and Schultz, M. [1986]. "Data Communications in Parallel Architectures," Department of Computer Science Report No. DCS/RR/461, Yale University, March.


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Bibliography


Swarztrauber, P. [1982], "Vectorizing the FFTs," in Rodrigue [1982], pp. 51-83.


Thole, C. [1987]. "Parallel Multigrid Algorithms on a Message-Based MIMD System," Proceedings of the Third Copper Mountain Conference on Multigrid Methods, April 6-10, Copper Mountain, CO.


Bibliography


Bibliography


Wittie, L. [1980]. "Architectures for Large Networks of Microcomputers," Workshop in Interconnection Networks for Parallel and Distributed Processing, April, pp. 31-40.


Bibliography


Bibliography


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