



Loop Tiling for Parallelism (Hardback)

By Jingling Xue

Kluwer Academic Publishers, United States, 2000. Hardback. Book Condition: New. 2000 ed.. 239 x 155 mm. Language: English . Brand New Book ***** Print on Demand *****.Loop tiling, as one of the most important compiler optimizations, is beneficial for both parallel machines and uniprocessors with a memory hierarchy. This book explores the use of loop tiling for reducing communication cost and improving parallelism for distributed memory machines. The author provides mathematical foundations, investigates loop permutability in the framework of nonsingular loop transformations, discusses the necessary machineries required, and presents state-of-the-art results for finding communication- and time-minimal tiling choices. Throughout the book, theorems and algorithms are illustrated with numerous examples and diagrams. The techniques presented in Loop Tiling for Parallelism can be adapted to work for a cluster of workstations, and are also directly applicable to shared-memory machines once the machines are modeled as BSP (Bulk Synchronous Parallel) machines. Features and key topics: * Detailed review of the mathematical foundations, including convex polyhedra and cones; * Self-contained treatment of nonsingular loop transformations, code generation, and full loop permutability; * Tiling loop nests by rectangles and parallelepipeds, including their mathematical definition, dependence analysis, legality test, and code generation; * A complete suite...



READ ONLINE
[8.39 MB]

Reviews

This pdf is wonderful. It is definitely simplified but excitement from the 50 percent in the ebook. You wont sense monotony at at any time of your time (that's what catalogues are for relating to should you request me).

-- **Jaqueline Kerluke**

I just started looking at this pdf. It can be rally fascinating throgh studying period of time. Its been printed in an extremely basic way and is particularly only following i finished reading through this publication where in fact altered me, change the way i really believe.

-- **Mr. Stephan McKenzie**

Related PDFs



[EU Law Directions \(Paperback\)](#)

Oxford University Press, United Kingdom, 2014. Paperback. Book Condition: New. 4th ed.. 242 x 188 mm. Language: English . Brand New Book. With a readable and modern writing style, EU Law Directions clearly explains the key topics and developments in this fast-paced...



[Children s Educational Book: Junior Leonardo Da Vinci: An Introduction to the Art, Science and Inventions of This Great Genius. Age 7 8 9 10 Year-Olds. \[Us English\] \(Paperback\)](#)

Createspace, United States, 2013. Paperback. Book Condition: New. 254 x 178 mm. Language: English . Brand New Book ***** Print on Demand *****.ABOUT SMART READS for Kids . Love Art, Love Learning Welcome. Designed to expand and inspire young minds; this is...



[Children s Educational Book Junior Leonardo Da Vinci : An Introduction to the Art, Science and Inventions of This Great Genius Age 7 8 9 10 Year-Olds. \[British English\] \(Paperback\)](#)

Createspace, United States, 2013. Paperback. Book Condition: New. 248 x 170 mm. Language: English . Brand New Book ***** Print on Demand *****.ABOUT SMART READS for Kids . Love Art, Love Learning Welcome. Designed to expand and inspire young minds; this is...



[Hope for Autism: 10 Practical Solutions to Everyday Challenges \(Paperback\)](#)

Seaborough Enterprises Publishing, United States, 2015. Paperback. Book Condition: New. Initial ed.. 203 x 127 mm. Language: English . Brand New Book ***** Print on Demand *****. Hope for Autism: 10 Practical Solutions to Everyday Challenges, provides answers to the many questions...



[Violin Concerto, Op.82: Study Score \(Paperback\)](#)

Petrucchi Library Press, United States, 2014. Paperback. Book Condition: New. Urtext ed.. 274 x 213 mm. Language: English . Brand New Book ***** Print on Demand *****.Premiered by the renowned violinist Leopold Auer in St. Petersburg in February of 1905, Glazunov s...



[Public Opinion + Conducting Empirical Analysis](#)

SAGE Publications Inc, United States, 2011. Kit. Book Condition: New. Revised ed.. 279 x 217 mm. Language: English . Brand New Book. Public Opinion : One of the central tenets of a democracy is that we expect the public to have some...