

Formal and Adaptive Methods for Automation of Parallel Programs Construction: Emerging Research and Opportunities

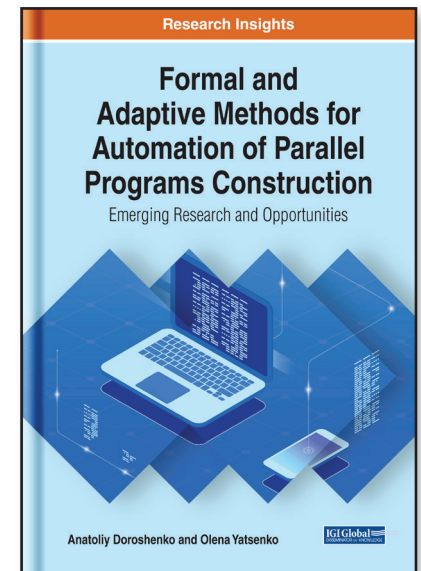
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Description:

Emerging scientific and industrial applications in today's world require significant computing power. Modern software tools are available for such platforms but are relatively complex and require the use of innovative programming models. One promising area in modern software design is the development, analysis, and implementation of algorithms and adaptive methods. These advancements in programming are promising but lack relevant research and understanding.

Formal and Adaptive Methods for Automation of Parallel Programs Construction: Emerging Research and Opportunities is an essential reference source that solves the problem of the development of efficient models, methods, and tools for parallel programming automation based on the algebra of algorithms, term rewriting, and auto-tuning paradigms. The results of this book will help to further develop and improve existing research on design, synthesis, and optimization of sequential and parallel algorithms and programs. Featuring research on topics such as auto-tuning methods, graphics processing, and algorithmic language, this book is ideally designed for mathematicians, software engineers, data scientists, researchers, academicians, and students seeking coverage on developing tools for automated design and parallel programs.



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Parallel Computing
Parameter-Driven Models
Programming Methods
Term Rewriting

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