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**Computer Science : Computer Systems Organization and Communication Networks**

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# Parallel Computing Hits the Power Wall

**Principles, Challenges, and a Survey of Solutions**

- Covers all strategies that have been proposed in the last decades to optimize parallel applications
- Presents as a case study a novel approach for improving the energy-efficient of parallel computing
- Explains how software developers can apply a novel technique to adapt the number of threads at runtime without any modification in the source code nor recompilation

This book describes several approaches to adaptability that are applied for the optimization of parallel applications, such as thread-level parallelism exploitation and dynamic voltage and frequency scaling on multicore systems. This book explains how software developers can apply a novel technique to adapt the number of threads at runtime without any modification in the source code nor recompilation. This book is useful for software developers in general since it offers realistic examples throughout to demonstrate various techniques presented.

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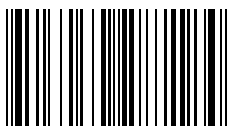
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