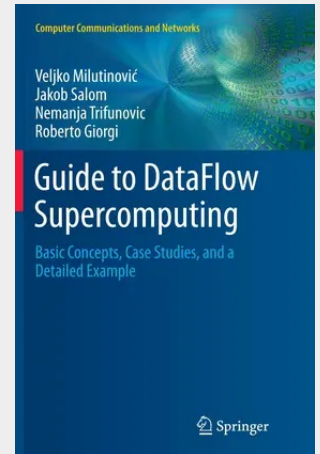


Guide to DataFlow Supercomputing

Basic Concepts, Case Studies, and a Detailed Example

This unique text/reference describes an exciting and novel approach to supercomputing in the DataFlow paradigm. The major advantages and applications of this approach are clearly described, and a detailed explanation of the programming model is provided using simple yet effective examples. The work is developed from a series of lecture courses taught by the authors in more than 40 universities across more than 20 countries, and from research carried out by Maxeler Technologies, Inc. Topics and features: presents a thorough introduction to DataFlow supercomputing for big data problems; reviews the latest research on the DataFlow architecture and its applications; introduces a new method for the rapid handling of real-world challenges involving large datasets; provides a case study on the use of the new approach to accelerate the Cooley-Tukey algorithm on a DataFlow machine; includes a step-by-step guide to the web-based integrated development environment WebIDE.

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