



Call for Book Chapters

After many years of research and development in university and industrial laboratories, the field of parallel and distributed simulation has been exploded in the last decade and is now seeing use in many real-world systems and applications. Our goal in editing Parallel and Distributed Simulations for Big Data Processing is to explore in-depth knowledge of technical issues concerning the execution of large-scale simulation models by bringing the big data processing under the domain of simulation. The goal is to bring together the fundamental principles concerning parallel and distributed simulation of large-scale systems for big data processing that today are scattered across numerous journals and conference proceedings. The intended audience includes managers, post graduate level students and practitioners involved in research and/or development of big data simulators systems. The book can serve as a textbook for an advanced undergraduate or a graduate level computer science and engineering course.

This book aims to consolidate the myriad research efforts pertinent to the Parallel and Distributed Simulation for Big Data Processing. Topics of interest include but are not limited to:

- Theory of Modeling and Simulation including formal modeling
- Synchronization methods in distributed simulation
- PDES on many-core systems
- Web based modeling and simulation
- Simulation techniques for large-scale systems
- Meta-modeling, Methods and algorithms for verification and validations
- Modeling of distributed File System
- Interest Management in Large-scale Simulations
- Design of Peer-to-Peer Network Simulator
- Modeling and Simulation of HDFS
- Comparing Big Data and Simulation Applications for Software Environments

- Design and Implementation of Big Data Simulator: YARNSim
- A Simulation Approach to Evaluating Design Decisions in MapReduce Setups
- A Realistic Hadoop Simulator for Parameters Tuning and Scalability Analysis
- Data-Intensive Scientific Applications at Extreme Scales through Simulations
- A Discrete Event based MapReduce Simulator
- Enabling Distributed Simulations Using Big Data and Clouds
- Design and Implementation of HLA/RTI
- Agent based simulations, Case studies, simulator designs, survey
- Methodology and application of modeling and simulation in any area

Important Dates

Title and Abstract Due: Aug 15, 2016
Notification on Abstracts: Sept 1, 2016
Final Chapter Draft Due: December 15, 2016
Notification of Acceptance/Revision: January 15, 2017
Camera-Ready Chapter Due: March 01, 2017

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