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Titolo	Sustained Simulation Performance 2018 and 2019 : Proceedings of the Joint Workshops on Sustained Simulation Performance, University of Stuttgart (HLRS) and Tohoku University, 2018 and 2019 / / edited by Michael M. Resch, Yevgeniya Kovalenko, Wolfgang Bez, Erich Focht, Hiroaki Kobayashi
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Descrizione fisica	1 online resource (VIII, 234 p. 92 illus., 75 illus. in color.)
Disciplina	004.35
Soggetti	Mathematics - Data processing Computer simulation Engineering mathematics Engineering - Data processing Computational Science and Engineering Computer Modelling Mathematical and Computational Engineering Applications
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I. Future HPC Challenges -- Part II. Performance Analysis and Optimization on Modern HPC Systems -- Part III. Techniques and Tools for New-Generation Computing Systems -- Part IV. Load Balancing Problems in HPC Simulations -- Part V. Applications and Numerical Methods for Large-Scale Systems. .
Sommario/riassunto	This book presents the state of the art in High Performance Computing on modern supercomputer architectures. It addresses trends in hardware and software development in general, as well as the future of High Performance Computing systems and heterogeneous architectures. The contributions cover a broad range of topics, from improved system management to Computational Fluid Dynamics, High Performance Data Analytics, and novel mathematical approaches for large-scale systems. In addition, they explore innovative fields like

coupled multi-physics and multi-scale simulations. All contributions are based on selected papers presented at the 26th and 28th Workshops on Sustained Simulation Performance, held at the High Performance Computing Center, University of Stuttgart, Germany, in October 2017 and 2018, and the 27th and 29th Workshops on Sustained Simulation Performance, held at the Cyberscience Center, Tohoku University, Japan, in March 2018 and 2019.

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