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recent developments in these areas can help to solve complex problems in the natural sciences and engineering. The content of the book is based on talks and papers presented at the conference Modern Mathematical Methods and High Performance Computing in Science & Technology (M3HPCST), held at Inderprastha Engineering College in Ghaziabad, India in January 2020. A wide range of both theoretical and applied topics are covered in detail, including the conceptualization of infinity, efficient domain decomposition, high capacity wireless communication, infectious disease modeling, and more. These chapters are organized around the following areas: Partial and ordinary differential equations Optimization and optimal control High performance and scientific computing Stochastic models and statistics Recent Trends in Mathematical Modeling and High Performance Computing will be of interest to researchers in both mathematics and engineering, as well as to practitioners who face complex models and extensive computations.
