Parallel Computation: Models And Methods

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If we perform the computations only in the mesh nodes, the postprocessing time takes some hundredths of percent of the total simulation time. To provide the compatibility with COMSOL format a parser was developed; it works with m-le representation of COMSOL model and extracts the information for creating the model. In the presented model dynamic focusing method is used to calculate the unknown potential of the middle electrode using the known potentials of the upper and the lower electrodes and potential equality constraint for middle electrodes separated by dielectrics. The parallel simulation is performed with even distribution of parametric variants on cluster nodes. The results are presented in the table 2.
Development of parallel computation methods for solving time-consuming problems is always a serious work. To simplify the theme under consideration, we will leave aside the mathematical aspect of development and the proof of algorithm convergence, as these issues are to this or that extent considered in a number of classical courses of mathematics. To decrease the complexity of parallel method modeling and analysis, it will be proposed that channel capacity is unlimited. As a result, data communication operations are carried out practically without any delays by means of simple copying messages into a channel. Models of Computation. Exploring the Power of Computing. Models of Computation. Although the 1970s and 1980s saw the development of models and methods of analysis directed at understanding the limits on the performance of computers, this attractive new material has not been made available at the introductory level. This book is designed to remedy this situation. This book is distinguished from others on theoretical computer science by its primary focus on real problems, its emphasis on concrete models of machines and programming styles, and the number and variety of models and styles it covers.