

Impact of grid computing on stochastic simulations

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Abstract :

The purpose of this conference is to present the new challenges for stochastic distributed simulation. The first part will give a short presentation dealing with the differences between: Grid Computing, Internet Computing, Peer-To-Peer, Cluster Computing, Meta Computing and Parasitic computing. Then the focus will be on grid computing, which could be considered as distributed computing taken to the next evolutionary stage. We will see what grid computing can do and also what a grid cannot do. The concepts of grid computing and the current status of some important grid projects will be presented. A second part will deal with the distribution of stochastic simulations and the distribution of simulation experiments (whether stochastic or not). Different techniques in use to distribute random numbers will be presented as well as future research directions. Optimization techniques will be explained for some complex life sciences simulation examples."