

High Performance Computing in Nanoelectronics

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Abstract:

The computation demand in modeling and simulation of electron devices is still growing and it's particularly high in nanoelectronics where nanoscale electro-thermal analysis can be used as an example. Hopefully the High Performance Computing (HPC) infrastructures become more easily accessible and offer for researches some new opportunities based on the open and shared resources including not only computing facilities but also knowledge with currently observed openings on the field of intellectual property issues. An overview of the current trends and initiatives from worldwide perspective is illustrated by lecturer's explorations of the HPC opportunities in nanoelectronics. The practical examples and instructions for potential users are presented, stimulating the audience to some exploratory tests of largely available modern tools.