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Title: ***The Changing Face of Advanced Computing and the Convergence of Modeling, Simulation, Analytics and Big Data***

Abstract:

The continuing growth of computer performance is delivering unprecedented capability to solve the most complex problems at ever increasing fidelity and reducing time-to-solution. The potential impact of emerging computing technology for research, industry and government can be revolutionary. This growth in performance is also adding a new challenge for systems, software and applications due to the data scales involved. For example, many enterprises today are unable to manage and analyze significant fractions of the data they collect because of the scales involved. In this presentation we will discuss algorithms and applications in both research and commercial domains from traditional HPC and from Commercial workload and identify the differing characteristics which drive convergence in underlying architecture for future systems.