数学与系统科学研究院

计算数学所学术报告

报告人： **Prof. Karniadakis,**
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报告题目： Parallel Simulatios of the Human Arterial Tree on the Teragrid

邀请人： 陈志明研究员

报告时间： 2007 年 10 月 19 日(周五)
上午 10:00—11:00

报告地点： 科技综合楼三层 311
计算数学所报告厅

Abstract:

The TeraGrid is a fast inter-state network in the USA that connects the main supercomputing centers funded by the National Science Foundation, offering the possibility for potentially unlimited scalability. Our group pioneered cross-site simulations for computing (in 3d and time) blood flow in all the 55 main arteries of a patient-specific geometry. The main software employed is our spectral element code NEKTAR based on MPICH-G2, a special middleware using Globus and MPICH for cross-site simulations. I will discuss scientific computing issues related to domain decomposition, scalability of liner solvers with effective preconditiners, as well as the prospects for future possible petascale simulations of the digital human.

欢迎大家参加！