数学与系统科学研究院

计算数学所学术报告

报告人: Prof. Yuri Vassilevski

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报告题目:

Numerical solution of boundary value problems on adaptive unstructured meshes

邀请人: 谢和虎 副研究员

报告时间: 2015 年 5 月 22 日(周五) 下午 16:00~17:00

报告地点: 科技综合楼三层 301 小报告厅

Abstract:

Numerical solution of boundary value problems (BVPs) is the corner stone of computational engineering. In the last decades, new numerical methods and mathematical technologies have been developed for the efficient solution of BVPs with realistic coefficients in real-world domains. We shall discuss several basic aspects of these technologies such as metric-based mesh adaptation and discretizations on distributed polyhedral meshes.

Short Biography:

Yuri Vassilevski is the deputy director of the Institute of Numerical Mathematics, Russian Academy of Science, professor at Moscow State University and Moscow Institute of Physics and Technology, managing editor of Russian Journal of Numerical Analysis and Mathematical Modeling.

Research interests: Theory of quasi-optimal meshes, mesh generation and adaptation, iterative methods for PDEs, discretization methods for PDEs, Computational Fluid Dynamics, Computational Hemodynamics and Reservoir Simulation.

http://dodo.inm.ras.ru/vassilevski/

Open source software Ani#D (joint development with K.Lipnikov, A.Danilov, V.Chugunov et al.)

- -Advanced Numerical Instruments: 2D adaptive meshing, FE methods, solvers: sourceforge.org/projects/ani2d
- -Advanced Numerical Instruments: 3D adaptive meshing, FE methods, solvers: sourceforge.org/projects/ani3d

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