数学与系统科学研究院

计算数学所学术报告

报告人：Associate Prof. Karel ksvadlenka

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报告题目：

Comparison of numerical methods for interfacial evolution

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　　　　　　上午 10:00-11:00

报告地点：　科技综合楼三层

　　　　　　311 报告厅

Abstract：

Several efficient numerical methods were developed for simple interfaces evolving according to various rules, such as the curve-shortening flow or the Stefan problem. Recently, the focus of researchers in this field has shifted towards numerical solution of interfacial networks with junctions, especially in the anisotropic or non-symmetric setting (for example, different surfaces tensions for each interface in the mean curvature flow).

In this talk, I will briefly review the two basic approaches to evolving interfaces that can be extended to the multiphase anisotropic/non-symmetric case including topological changes: the phase-field method and the level-set method (in particular, its simplified version proposed by Merriman, Bence and Osher). I will present an overview of the state of the art methodologies and their range of applicability, mentioning also some results of my own.

欢迎大家参加！