数学与系统科学研究院

计算数学所学术报告

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报告题目：

Asymptotically compatible schemes for robust discretization of nonlocal models and their local limit

邀请人： 张文生 研究员

报告时间：2014 年 1 月 8 日（周三）

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:

We present an abstract framework of asymptotically compatiable (AC) schemes for robust discretizations of a family of parametrized problems. The AC schemes provide convergent approximations to problems associated with fixed parameter values as well as their limiting values. This framework is then applied to study approximations of nonlocal models such as peridynamic models of nonlocal elasticity parametrzed by the horizon parameter and their local PDE limits (Navier equations) when the horizon parameter approaches zero. In particular, by combining with the theory of nonlocal calculus of variations, a precise characterization of AC schemes can be obtained for popular conforming finite element discretizations.

欢迎大家参加！