



复旦大学数学科学学院

数学综合报告会

报告题目: Consistent coupling of nonlocal and local diffusion problems

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报告时间: 2016-05-24 星期二 14:40-15:30

报告地点: 光华西辅楼 501

摘要: We proposed a new consistent quasinonlocal model which couples several multi-scale nonlocal diffusion problems. The resulting coupling diffusion kernel is proved to be symmetric, patch-test consistent, positive-definite and satisfies maximum principle. We also proposed a first order finite difference approximation which keeps all the properties at the discrete level. These properties are verified by a few numerical examples.

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