数学与系统科学研究院

计算数学所学术报告

报告人：　Prof. Eric Chuang

（ Department of Mathematics, The Chinese University of Hong Kong, China ）

报告题目：

Nonlocal Multi-continua Upscaling

邀请人：　曹礼群 研究员

报告时间：2018 年 7 月 18 日（周三）

下午 16:00-17:00

报告地点：　数学院南楼二层

212 教室

Abstract:

In this talk, we present a rigorous and accurate non-local (in the oversampled region) upscaling framework. Our proposed method consists of identifying multi-continua parameters via local basis functions and constructing non-local (in the oversampled region) transfer and effective properties. To achieve this, we derive appropriate local problems in oversampled regions once we identify important modes representing each continua. We use piecewise constant functions in each fracture network and in the matrix to write an upscaled equation. Thus, the resulting upscaled equation is of minimal size and the unknowns are average pressures in the fractures and the matrix. We present numerical results, which show that the proposed approach can provide good accuracy.

欢迎大家参加！