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：

A virtual element method for the coupled Stokes–Darcy problem with the Beaver–Joseph–Saffman interface condition

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报告时间：**2019** 年 **12** 月 **24** 日（周二）

上午 **9:30-10:30**

报告地点：　科技综合楼三层

301 报告厅

Abstract:

In this talk, we propose a virtual element method for discretizing the equations that couple the incompressible steady Stokes flow with the Darcy flow by means of the Beaver–Joseph–Saffman condition on their interface. In addition to avoiding explicit expressions of basis functions, this method can not only improve the computational efficiency of any polynomial degree, but also can treat any polygonal elements, including non-convex and non-matching elements. Moreover, combining with the discrete inf-sup condition of a virtual element approximation for the velocity and pressure pair Pk/Pk−1, we can obtain optimal error estimates. Furthermore, numerical experiments are presented to show the efficiency and validity of the coupled method.

欢迎大家参加！