



复旦大学数学科学学院 数学综合报告会

报告题目: Decoupled modified characteristic finite element method for the time dependent Navier-Stokes/Biot problem

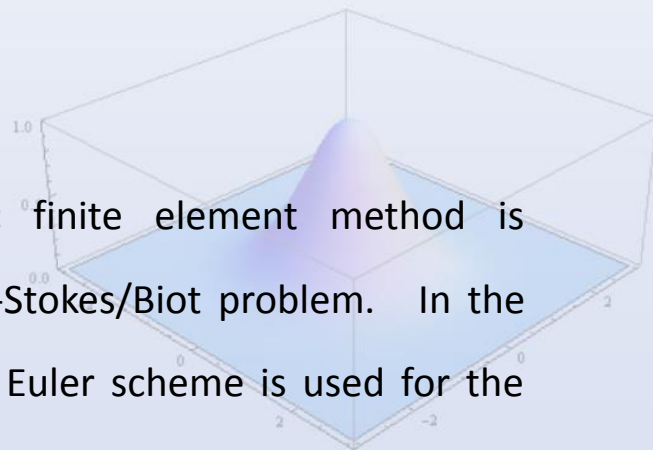
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时间: 2020-10-6 星期二 10:30-11:30

地点: 光华东主楼 1801

报告摘要:

A decoupled modified characteristic finite element method is proposed for the time dependent Navier-Stokes/Biot problem. In the numerical scheme, the implicit backward Euler scheme is used for the time discretization, whereas the coupling terms are treated explicitly. At each time step, we only need to solve two decoupled problems, one is the Navier-Stokes equations solved by the modified characteristic finite element method, and the other is Biot equations. The stability and the error estimates are established for the proposed fully-discrete scheme. Numerical experiments are provided to illustrate the theory.



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