

学术报告

Superconvergence of MAC scheme for simulating wormhole propagation with the DBF framework

李晓丽 博士

厦门大学

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Abstract: In this talk, we shall first present the finite difference scheme on non-uniform staggered grids for wormhole propagation with the Darcy–Brinkman–Forchheimer framework in porous media. Error estimates for the pressure, velocity, porosity, concentration and auxiliary flux with second-order superconvergence in different discrete norms are established rigorously and carefully on non-uniform grids. We also obtain second-order superconvergence for some terms of the H^1 norm of the velocity on non-uniform grids. Finally, some numerical experiments are presented to verify the theoretical analysis and effectiveness of the proposed scheme.

欢迎大家参加！