Shi, Jincheng; Li, Yuanfei
Convergence of Brinkman-Forchheimer model in porous medium. (Chinese. English summary) Zbl 07366766

Summary: This paper studies the structural stability for the Brinkman-Forchheimer equations. Firstly, we obtain some useful a priori bounds. Then, using these bounds, we deduce that the solution satisfies a differential inequality. Finally, we can get the result of convergence result on the Brinkman coefficient $v$.

MSC:
35G31 Initial-boundary value problems for nonlinear higher-order PDEs
35B35 Stability in context of PDEs

Keywords:
Brinkman-Forchheimer equation; Brinkman coefficient; Forchheimer coefficient