Mathematics > Analysis of PDEs

Well-posedness for a multi-dimensional viscous liquid-gas two-phase flow model

Chengchun Hao, Hai-Liang Li

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The Cauchy problem of a multi-dimensional ($d\geqslant 2$) compressible viscous liquid-gas two-phase flow model is concerned in this paper. We investigate the global existence and uniqueness of the strong solution for the initial data close to a stable equilibrium and the local in time existence and uniqueness of the solution with general initial data in the framework of Besov spaces. A continuation criterion is also obtained for the local solution.

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