

عنوان مقاله:

New Derivation of Finite Volume Axisymmetric Compressible LBM for Numerical Simulation

محل انتشار:

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خلاصه مقاله:

A new derivation of the axisymmetric compressible Lattice Boltzmann Method is developed for numerical simulation of compressible inviscid flow around the axisymmetric body using the finite volume method. The circular function idea is used for capturing the compressibility effect in a supersonic flow field. In this study, the axisymmetric governing equations based on the simple circular function are derived for the first time and expressed in detail. The discretization is carried out by the 3rd order of the MUSCL scheme and the code is developed by correcting the appropriate boundary conditions via D2Q13L2 lattices.

کلمات کلیدی:

. Axisymmetric , Compressible , Circular Function , Lattice Boltzmann Method

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