

## A review of Lattice Boltzmann Simulation of Fluid Flow through Porous Media

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### Abstract

The Lattice Boltzmann Method is used to simulate the flow in quasi-two-dimensional micromodels of realistic porous media. The third dimension was taken into account using an effective viscous drag force. In this case, a 2D micromodel of Berea sandstone is considered. The flow field and permeability of the micromodel are calculated and excellent agreement with Microparticle Image Velocimetry ( $\mu$ -PIV) experiments is found.

**Keywords:** Porous media, Lattice Boltzmann Method, Single phase flow

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