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A New Numerical Solution of Fluid Flow in Stratigraphic Porous Media XU You-Sheng,<sup>1,2</sup> LI Hua-Mei,<sup>1</sup> GUO Shang-Ping,<sup>3</sup> and HUANG Guo-Xiang<sup>2</sup>

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Abstract: A new numerical technique based on a lattice-Boltzmann method is presented for analyzing the fluid flow in stratigraphic porous media near the earth's surface. The results obtained for the relations between porosity, pressure, and velocity satisfy well the requirements of stratigraphic statistics and hence are helpful for a further study of the evolution of fluid flow in stratigraphic media.

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Key words: fluid flow, stratigraphic porous media, lattice-Boltzmann method

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