

Accepted Manuscript

Block iterative frequency-based lattice Boltzmann algorithm for
microscale oscillatory flow

Hang Kang , Yong Shi , Yuying Yan

PII: S0045-7930(18)30125-7
DOI: [10.1016/j.compfluid.2018.03.020](https://doi.org/10.1016/j.compfluid.2018.03.020)
Reference: CAF 3781



To appear in: *Computers and Fluids*

Received date: 11 June 2017
Revised date: 20 December 2017
Accepted date: 2 March 2018

Please cite this article as: Hang Kang , Yong Shi , Yuying Yan , Block iterative frequency-based lattice Boltzmann algorithm for microscale oscillatory flow, *Computers and Fluids* (2018), doi: [10.1016/j.compfluid.2018.03.020](https://doi.org/10.1016/j.compfluid.2018.03.020)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- A lattice Boltzmann algorithm is proposed for simulating microscale oscillatory flow.
- All its results are frequency-based enabling a direct comparison to MEMS experiments.
- This algorithm is devised by the block iterative, rather than time marching, scheme.
- This change provides rich potential for designing a LB algorithm by CFD techniques.

Download English Version:

<https://daneshyari.com/en/article/7156233>

Download Persian Version:

<https://daneshyari.com/article/7156233>

[Daneshyari.com](https://daneshyari.com)