

## WAVE-STRUCTURE INTERACTION USING FREE SURFACE LATTICE BOLTZMANN METHOD(FSLBM)

Mohd, Nik

Interdisciplinary Graduate School of Engineering Science, Kyushu University

Hu, Changhong

Research Institute for Applied Mechanics, Kyushu University

Li, Xuhui

Interdisciplinary Graduate School of Engineering Science, Kyushu University

<https://doi.org/10.15017/1809216>

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出版情報 : Proceedings of International Exchange and Innovation Conference on Engineering & Sciences (IEICES). 1, pp.1-, 2015-10-15. 九州大学大学院総合理工学府

バージョン :

権利関係 :

## **WAVE-STRUCTURE INTERACTION USING FREE SURFACE LATTICE BOLTZMANN METHOD (FSLBM)**

Nik Mohd<sup>1</sup>, Changhong Hu<sup>2</sup>, Xuhui Li<sup>3</sup>

<sup>1,3</sup>Interdisciplinary Graduate School of Engineering Science, Kyushu University

<sup>2</sup>Research Institute for Applied Mechanics (RIAM), Kyushu University

E-mail: <sup>1</sup>nik.mohd@riam.kyushu-u.ac.jp, <sup>2</sup>hu@riam.kyushu-u.ac.jp, <sup>3</sup>lixuhui@riam.kyushu-u.ac.jp

**Abstract:** *In the present study, we have developed the free surface LBM (FSLBM) algorithm for wave-structure interaction flow problem. Standard Single Relaxation Time (SRT) approximation with the Bhatnagar-Gross-Krook (BGK) collision model were used. In addition, a Smagorinsky Large Eddy Simulation (LES) Model was implemented in order to capture turbulent structure in the flow. From the results, a good agreement was yielded with the published results and it provided a validation benchmark to qualitatively verify the proposed approach.*