

Accepted Manuscript

Cellular automaton simulation of pedestrian flow considering vision and multi-velocity

Xuemei Zhou, Jingjie Hu, Xiongziyan Xiao

PII: S0378-4371(18)31178-6
DOI: <https://doi.org/10.1016/j.physa.2018.09.041>
Reference: PHYSA 20102

To appear in: *Physica A*

Received date: 18 January 2016
Revised date: 23 June 2018

Please cite this article as: X. Zhou, et al., Cellular automaton simulation of pedestrian flow considering vision and multi-velocity, *Physica A* (2018), <https://doi.org/10.1016/j.physa.2018.09.041>

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

We introduce multithreading mechanism into the update rules of cellular automata in order to simulate pedestrian with different walking abilities.

Vision area function is the basis for decision making when pedestrians interact with each other.

We compare the effects of visual area function on different types of pedestrian.

We analyze the effects of velocity composition on pedestrian dynamics under different densities.

Download English Version:

<https://daneshyari.com/en/article/11023319>

Download Persian Version:

<https://daneshyari.com/article/11023319>

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