A conjunction of the discrete-continuous pedestrian dynamics model SigmaEva with fundamental diagrams

Ekaterina Kirik, Tatyana Vitova, Andrey Malyshev, Egor Popel
Institute of Computational Modelling, Russian Academy of Sciences
Siberian Branch, Krasnoyarsk, Russia
{kirik,vitova}@icm.krasn.ru

This article is focused on dynamics of the computer simulation module SigmaEva in connection with unidirectional flow under periodic boundary conditions. The module SigmaEva realizes the discrete-continuous stochastic pedestrian dynamics model that is shortly presented here. Fundamental diagram is an input for the model. Simulated specific flow rates for different diagrams are considered versus original (input) ones.

Keywords: Fundamental diagrams, (Specific) flow rate, Pedestrian dynamics model, Transition probabilities, Evacuation modelling.