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Kinetic Monte Carlo simulations of two-dimensional pedestrian flow models

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*Highlights (for review)

Highlights:

- We presented cellular automaton models for the two-way and four-way pedestrian flows.
- We applied an efficient kinetic Monte Carlo method to simulate pedestrian flows.
- We compared statistical properties of the simulation results with empirical data.
- Two-way and four-way pedestrian flows show difference in statistical properties.
- The system size and the interaction strength play significant roles in the models.