

Accepted Manuscript

Interactive dynamics controlling symmetry breaking in bidirectional transport systems with narrow entrances

Natasha Sharma, Tripti Midha, Arvind Kumar Gupta

PII: S0378-4371(18)31220-2
DOI: <https://doi.org/10.1016/j.physa.2018.09.088>
Reference: PHYSA 20149

To appear in: *Physica A*

Received date: 26 June 2018
Revised date: 14 September 2018

Please cite this article as: N. Sharma, et al., Interactive dynamics controlling symmetry breaking in bidirectional transport systems with narrow entrances, *Physica A* (2018), <https://doi.org/10.1016/j.physa.2018.09.088>

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 two-channel bidirectional TASEP model with narrow entrances, including the collective motion of interacting particles is studied.
- The phase diagrams are analyzed theoretically within the near field approximation and substantiated with Monte Carlo simulations.
- The control of interactions on the symmetry breaking structure is examined.
- The phase properties with strong size dependency have been explored based on simulations findings.
- The impact of correlation strength on system behavior has been analyzed.

Download English Version:

<https://daneshyari.com/en/article/11023293>

Download Persian Version:

<https://daneshyari.com/article/11023293>

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