

[Corwin, Ivan](#); [Liu, Zhipeng](#); [Wang, Dong](#)

Fluctuations of TASEP and LPP with general initial data. (English) Zbl 1356.82013

Ann. Appl. Probab. 26, No. 4, 2030-2082 (2016).

The paper deals with totally asymmetric simple exclusion processes (also known as TASEP) and describes how fluctuations around the law of large numbers evolve. The main mathematical tools referred to in this work are results from the uniform slow decorrelation property which allows generalizations of some previous results in the literature on the one hand, and the geometric random weight last passage percolation (LPP) model on the other hand. The results are stated in terms of a deterministic down-right lattice path/initial condition/boundary data.

Reviewer: [Guy Jumarie \(Montréal\)](#)

MSC:

[82B23](#) Exactly solvable models; Bethe ansatz
[60H15](#) Stochastic partial differential equations (aspects of stochastic analysis)
[82B43](#) Percolation
[82C22](#) Interacting particle systems in time-dependent statistical mechanics

Cited in **14** Documents

Keywords:

[TASEP](#); [last passage percolation](#); [Kardar-Parisi-Zhang](#)

Full Text: [DOI](#) [Euclid](#) [arXiv](#)