

Bangalore School on Statistical Physics XIV

Hydrodynamics of stochastic lattice gases, reading material, Herbert Spohn, 9/2023.

*Textbooks, lecture courses*

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<https://www.gakushuin.ac.jp/~881791/OL/ne/e/>

H. Spohn, Large Scale Dynamics of Interacting Particles, Part II, Texts and Monographs in Physics, Springer Verlag (1991).

*Review articles*

B. Derrida, An exactly soluble non-equilibrium system: The asymmetric simple exclusion process, Physics Reports **301**, 65-83 (1998).

J. Krug, Origins of scale invariance in growth processes, Adv. Phys. **46**, 139-282 (1997).

T. Halpin-Healy and K. Takeuchi, A KPZ cocktail-shaken, not stirred: Toasting 30 years of kinetically roughened surfaces, J. Stat. Phys. **160**, 794-814 (2015).

A. Lazarescu, The physicist's companion to current fluctuations: one-dimensional bulk-driven lattice gases, J. Phys. A **48**, 503001 (2015).

S. Lepri, R. Livi and A. Politi, eds., Thermal transport in low dimensions: from statistical physics to nanoscale heat transfer, Lecture Notes in Physics, Springer, 2016.

G.M. Schütz, Exactly solvable models for many-body systems far from equilibrium, Phase Transitions and Critical Phenomena, ed. J.L. Lebowitz, 1-251, Academic Press (2001).

H. Spohn, Exact solutions for KPZ-type growth processes, random matrices, and equilibrium shapes of crystals, Physica A **369**, 71-99 (2006).

H. Spohn, The Kardar-Parisi-Zhang equation - a statistical physics perspective, Les Houches Summer School July 2015 session CIV "Stochastic processes and random matrices", Oxford University Press, 2017.

K. Takeuchi, An appetizer to modern developments on the Kardar-Parisi-Zhang universality class, Physica A **504**, 77-105 (2018).

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I. Dornic, H. Chaté, J. Chave and H. Hinrichsen, Critical coarsening without surface tension: The universality class of the voter model, Phys. Rev. Lett. **87**, 045701 (2001).