

Herbert Spohn

List of Publications

Books

Large Scale Dynamics of Interacting Particles, 342 pages, Texts and Monographs in Physics, Springer Verlag, Heidelberg, 1991.

Dynamics of Charged Particles and Their Radiation Field, 360 pages, Cambridge University Press, 2004.

Hydrodynamic Scales of Integable Many-Particle Systems, 230 pages, World Scientific, Singapore 2023.

Review articles

H. Spohn, *Kinetic equations from Hamiltonian dynamics: Markovian limits*, Review of Modern Physics **53**, 569–615 (1980).

H. Spohn, *Fluctuation theory for the Boltzmann equation*, in: Studies in Statistical Mechanics X, eds. E.W. Montroll, J.L. Lebowitz, pp. 225–251. North-Holland, Amsterdam 1983.

J. Krug and H. Spohn, *Kinetic roughening of growing surfaces*, in: Solids Far From Equilibrium, ed. C. Godrèche, pp. 412–525. Cambridge University Press, 1991.

Articles in journals

1. H. Spohn, *Relaxing properties of Hamiltonian systems*, Reports in Mathematical Physics **8**, 363–371 (1975).

2. H. Spohn, *Spectral properties of Liouville operators and their physical interpretation*, Physica A **80**, 323–338 (1975).

3. H. Spohn, *The spectrum of the Liouville - von Neumann operator*, Journal of Mathematical Physics **17**, 57–60 (1976), Erratum **18**, 188 (1977).

4. H. Spohn, *Quantum measurement theory including initial correlations and observables with continuous spectrum*, International Journal of Theoretical Physics **15**, 365–375 (1976).

5. H. Spohn, *Relaxation of finite closed systems*, Reports in Mathematical Physics **10**, 283–302 (1976).

6. H. Spohn, *Approach to equilibrium for completely positive dynamical semigroups of N -level systems*, Reports in Mathematical Physics **10**, 189–194 (1976).

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11. W. Ochs and H. Spohn, *A characterization of the Segal entropy*, Reports in Mathematical Physics **14**, 75–87 (1978).
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14. E.B. Davies and H. Spohn, *Open quantum systems with time dependent Hamiltonian and their linear response*, Journal of Statistical Physics **19**, 511–523 (1978).
15. J.L. Lebowitz and H. Spohn, *Transport properties of the Lorentz gas: Fourier's law*, Journal of Statistical Physics **19**, 633–654 (1978).
16. H. Spohn, *Kinetic equations from Hamiltonian dynamics: the Markovian limit*, in: Stochastic Processes in Nonequilibrium Systems, eds. L. Garrido, P. Seglar, P.J. Sheperd, Lecture Notes in Physics, Vol. 84, pp. 330–335. Springer Verlag, Berlin 1978.
17. A. Frigerio and H. Spohn, *Stationary states of quantum dynamical semigroups and applications*, in: Proceedings of Mathematical Problems in the Theory of Quantum Irreversible Processes, eds. L. Accardi, V. Gorini, G. Paravicini, pp. 115–135 Laboratoria di Cibernetica del CNR, 1978.
18. H. Spohn, *Boltzmann equation on a lattice: existence and uniqueness of solutions*, Journal of Statistical Physics **20**, 463–469 (1979).
19. M. Aizenman and H. Spohn, *Probabilistic methods for stationary problems of linear transport theory*, Journal of Statistical Physics **21**, 23–32 (1979).
20. R. Dümcke and H. Spohn, *The proper form of the generator in the weak coupling limit*, Zeitschrift für Physik B **34**, 419–422 (1979).
21. M. Fannes, H. Spohn, and A. Verbeure, *Equilibrium states for mean field models*, Journal of Mathematical Physics **21**, 355–360 (1980).
22. H. van Beijeren, O.E. Lanford, J.L. Lebowitz, and H. Spohn, *Equilibrium time correlation functions in the low density limit*, Journal of Statistical Physics **22**, 237–257 (1980).
23. H. Spohn, *Derivation of kinetic equations from Hamiltonian dynamics: The example of the Lorentz gas*, in: Mathematical Problems in the Kinetic Theory of Gases, eds. D.C. Pack, H. Neunzert, pp. 3–24. Peter Lang Verlag 1980.
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