

**Liggett, Thomas M.**

**Reversible growth models on  $\mathbb{Z}^d$ : Some examples.** (English) Zbl 0636.60104

Percolation theory and ergodic theory of infinite particle systems, Proc. Workshop IMA, Minneapolis/Minn. 1984/85, IMA Vol. Math. Appl. 8, 213-227 (1987).

[For the entire collection see [Zbl 0615.00015](#).]

In his paper “Reversible growth models on symmetric sets”, Proceedings of the Taniguchi international Symposium on Probabilistic Methods in Mathematical Physics, Katata and Kyoto 1985, the author introduced and studied a class of reversible growth models on a fairly general set of sites. In the present paper he applies the results of the previous paper to various examples of models on the  $d$ -dimensional integer lattice.

From the introduction: These models are generalizations of the finite reversible nearest particle systems on the integers. The focus of attention in these growth models is the probability of survival of the system. Typically there are natural one-parameter families of models, and one wishes to determine the critical values for that parameter, which is the point at which survival with positive probability begins to occur. Once this is done, it is of interest to determine the manner in which the survival probability approaches its limit (which is usually zero) as the parameter approaches the critical value from above. The later sections deal with various special classes of models in which the birth rates have a specified form.

Reviewer: [L.G.Gorostiza](#)

**MSC:**

**60K35** Interacting random processes; statistical mechanics type models; percolation theory

Cited in **2** Documents

**Keywords:**

[survival probability](#); [reversible growth models](#); [reversible nearest particle systems](#)