

Busemann functions and infinite geodesics in planar stochastic growth

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We discuss the interplay between the Busemann process, the shape function, infinite geodesics, and critical angles in the standard planar corner growth model, that is, nearest-neighbor directed last-passage percolation in an IID environment. We begin with exponential weights where a complete description of all infinite geodesics has been established and then discuss partial results under general IID weights. Based on collaborations with M. Balazs, E. Bates, O. Busani, E. Emrah, W.L. Fan, C. Janjigian, J. B. Martin, F. Rassoul-Agha, X. Shen, and E. Sorensen.