

The geometry of last-passage percolation models

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Abstract:

The last-passage percolation model on the square lattice lies at the nexus of several branches of mathematics like probability, statistical physics, and queueing theory. In this talk we will review some known results and present some new ones on properties of the semi-infinite geodesics and shock-like structures. Connections are made to Busemann functions and competition interfaces. Joint work with Chris Janjigian (Utah) and Timo Seppalainen (Madison-Wisconsin).