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Timo Seppäläinen*, Mathematics Department, Van Vleck Hall, 480 Lincoln Dr., Madison, WI 53706. *Stationary versions and fluctuation exponents for the exactly solvable stochastic corner growth model.*

This talk describes the derivation of the limiting shape and the fluctuation exponents for a stochastic growth model on the planar integer lattice known as the corner growth model. When the random weights assigned to lattice points that determine the speed of growth have exponential distributions, this model is exactly solvable. A particular feature of its solvability is that it possesses a tractable stationary version that is suitably invariant under lattice translations. Utilizing the stationary version enables one to perform explicit calculations and in particular to determine fluctuation exponents.

The planar corner growth model is a member of the so-called Kardar-Parisi-Zhang (KPZ) universality class. All members of the class are expected to share the same fluctuation exponents, but this remains a conjecture. This lecture is part of the AMS Short Course on Random Growth Models. (Received September 21, 2016)