

KPZ universality for KPZ

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ABSTRACT

The KPZ equation is a distinguished, eponymous member of a huge universality class of driven diffusive systems and directed polymers, with a special invariant fixed point, the KPZ fixed point, discovered through the exact solution of special discrete models. The key open problem is universality, i.e. to show non-solvable models in the class converge to the same fixed point. Here we describe a method which allows one to compare exclusion processes with sufficient precision to show they are all in the class, along with the KPZ equation itself which can be obtained as a limit. Joint work with Sourav Sarkar.