

One dimensional random growth and the KPZ fixed point

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This talk will review results on the universal asymptotic fluctuations of a broad collection of one-dimensional random growth models, the KPZ universality class. At the center of the class lies the KPZ fixed point, a scaling invariant Markov process which arises as the scaling limit of all KPZ models. Special models in the class, which also includes directed polymers and interacting particle systems, exhibit a remarkable degree of solvability, leading to explicit formulas for their transition probabilities and those of the KPZ fixed point. During the talk I will describe these topics and explain how they lead to a connection with classical integrable differential equations.

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