

Two-dimensional growth models in the Anisotropic KPZ class

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I will discuss stochastic interface growth models, in particular in dimension $(2+1)$. A conjecture due to D. Wolf, based on perturbative renormalization-group computations, relates the growth exponents of fluctuations with the convexity properties of the function $v(\rho)$ that gives the interface speed v as function of the interface slope ρ . In particular, it is conjectured that there are two universality classes, called KPZ class and Anisotropic KPZ (AKPZ) class, with different growth exponents. I will present some mathematical results on AKPZ class models, in agreement with Wolf's conjecture. The contents of the talk are based on results in collaboration with S. Chhita, P. Ferrari and M. Legras, see arXiv:1503.05339, arXiv:1704.06581 and arXiv:1705.07641.