1151-60-238 Konstantin Matetski* (matetski@math.columbia.edu), Columbia University, Department of Mathematics, Office 517, 2990 Broadway, New York, NY 10027. Directed mean curvature flow in noisy environment.

We consider a mean curvature motion of an interface in 1+1 dimensions, perturbed by a random drift pointing in the normal direction of the graph. The intensity of the drift exhibits small fluctuations determined by an inhomogeneous environment. We show that under parabolic scaling the interface converges to the Hopf-Cole solution of the KPZ equation. Our method requires adjustment of the theory of regularity structures for stochastic PDEs with inhomogeneous noise. Another renowned equation which falls into our framework and which exhibits the same limiting behavior is the quenched KPZ equation. This is a joint work with M. Hairer and A. Gerasimovics. (Received August 19, 2019)