

# The Voter Model in a Random Environment in $Z^d$

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**Abstract:** We consider the voter model with flip rates determined by  $(\mu_e, e \in E_d)$ , where  $E_d$  is the set of all non-oriented nearest-neighbour edges in the Euclidean lattice  $Z^d$ . Suppose that  $(\mu_e, e \in E_d)$  are i.i.d. random variables satisfying  $\mu_e \geq 1$ . We prove that when  $d = 2$ , almost surely for all random environments the voter model has only two extremal invariant measures:  $\delta_0$  and  $\delta_1$ . This is a joint work with Zhichao Shan.