Branching random walks in random environment

Marcel Ortgiese [1], Matt Roberts [2]

[1] Bath

[2] Bath

We consider a branching random walk on the lattice, where the branching rates are given by a random potential. Under the assumption that the potential is particularly heavy-tailed, we will present a scaling limit for the process. The limiting object is a system of 'growing lilypads' defined on a Poisson point process. We also show that the process is localised in a single point in the sense that the mass at that point is comparable to the total mass. If we combine the results we can deduce ageing for the maximizer of the process.