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Continuum limits of branching systems on the hierarchical lattice

The fact that rescaled limits of some classes of interacting particle systems and interacting diffusions on the Euclidean lattice give rise to super-Brownian motion has been established by a number of authors. In this lecture the corresponding question is considered for branching and catalytic branching systems on the hierarchical lattice and some partial results based based on the hierarchical mean field limit are described.

This is joint work with A. Greven and I. Zähle.