The diffusion analogue to a tree-valued Markov chain

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In ‘99, David Aldous conjectured that a certain natural “random walk” on the space of binary combinatorial trees should have a continuum analogue, which would be a continuum-tree-valued diffusion - a continuous stochastic process on a space of tree-like metric spaces. This talk discusses ongoing work by F-Pal-Rizzolo-Winkel that has recently verified this conjecture with a path-wise construction of the diffusion. This construction combines our work on dynamics of certain projections of the combinatorial tree-valued random walk with our previous construction of interval-partition-valued diffusions.