

**DEPARTMENT OF STATISTICS AND BIOSTATISTICS  
CENTER FOR INTEGRATIVE PROTEOMICS RESEARCH**



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The diffusion analogue to a tree-valued Markov  
chain

**December 12, 2015**

**3:20 – 4:20pm**

Light refreshments will be served

**110 Frelinghuysen Road**

**Hill Center, Room 552**

**Abstract:** 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.

**Bio:** Noah Forman is a postdoc in math at the University of Washington. He has a B.A. in math and physics from Oberlin College, a Ph.D. in math from UC Berkeley, earned under the supervision of Jim Pitman, and he was a postdoc at Oxford. He has been maligned as a "West Coast coin flipper."

