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**Erin Beckman\*** ([ebeckman@math.duke.edu](mailto:ebeckman@math.duke.edu)), Duke University, Department of Mathematics, Campus Box 90320, Durham, NC 27708-0320, and **Natalie Frank, Yufeng Jiang, Matthew Junge** and **Si Tang**. *The Frog Model on Trees with Drift*.

In this talk, I will introduce a version of the frog model interacting particle system. The system initially consists of a single active particle at the root of a  $d$ -ary tree and an inactive particle at every other node on the tree. Active particles move according to a biased random walk and when an active particle encounters an inactive particle, the inactive particle becomes active and begins its own biased random walk. We find an upper bound on the drift such that the model is recurrent. I will describe a subprocess of the frog model and how it can be coupled across trees of different degrees to give this result. (Received September 25, 2018)