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*Birth-jump process in plan dynamics*

In this talk I will introduce and provide an analysis of a discrete agent-based-model, based on a birth-jump process, to model plant dynamics. The system exhibits wave-like solutions. In order to rigorously analyze this traveling-wave phenomena I will present the diffusion-limit of the discrete model and prove the existence of traveling wave solutions (sharp and continuously differentiable) assuming a logarithmic-type growth. Furthermore, I will discuss a variational speed for the minimum speed of the waves and perform numerical experiments that confirm our results.