1014-92-175 David M Chan* (dmchan@vcu.edu), Department of Mathematics, Virginia Commonwealth University, 1001 West Main Street, Richmond, VA 23284-2014, and Rodney Dyer (rjdyer@vcu.edu). Cellular Automata with Propensity for Insectal Pollen Propagation. Preliminary report.

The two main mechanisms that plants use to disperse pollen are insects and wind. Currently both are modeled assuming pollen follow a purely random walk. However, we believe that there are significant measurable differences between these two modes of transport. We use a CA model with propensity to see the difference in genetic differentiation within a population. (Received September 28, 2005)