1024-37-102   **Jane Hawkins*** (`jmh@math.unc.edu`), Math Department, CB #3250, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599, and **Donna Molinek**. *Dynamical properties of stochastic cellular automata.* Preliminary report.

We discuss the dynamics of cellular automata with the property that at each site in the lattice, or at each coordinate of a point in the domain of the map, a random choice among finitely many local rules is made. We call these stochastic CA's and we set up a mathematical framework for them and provide simple examples in one dimension. They arise in mathematical models of the spread of viruses where the fast mutation of the virus leads to the appearance of a random choice of local rule. We conclude with a version of the virus model. (Received January 03, 2007)