1065-00-80 **Anne Burns*** (aburns@liu.edu), Department of Mathematics, C.W.Post Campus of Long Island University, 720 Northern Blvd., Brookville, NY 11548. *The Use of Color in Animating Dynamical Systems.*

In a simple dynamical system that depends on a single parameter the illusion of three dimensional growth can be created by the use of color. An increase in the number of parameters that define a dynamical system allows more variety in assigning color and value as functions of the parameters. As the parameters of a system change, the color assignments undergo changes as well, creating a sense of motion. For a dynamical system that depends on one or more complex parameters, since RGB color is a three dimensional space (four if we also use transparency), there is a seemingly endless number of color assignments. By making color assignments a function of time the illusion of motion can be speeded up or slowed down. A continuous change in parameters can transform one system to another. Using color and value as functions of the parameters in a dynamical system allows a great deal of room for artistic expression. (Received September 01, 2010)