1046-J1-1680   **Douglas E Norton*** (`douglas.norton@villanova.edu`), Dept. of Mathematical Sciences, Villanova University, 800 Lancaster Avenue, Villanova, PA 19085. *Parameters, Patterns, and the Phase Plane.* Preliminary report.

The phase plane provides a standard visual representation of some qualitative properties of solutions of systems of differential equations modeling two interacting populations. A phase portrait is traditionally used to represent related solutions of a particular system of equations. In this preliminary report, we investigate the graphical representation of solution curves of systems close in parameter space that share common initial conditions. In these simple preliminary examples, the patterns and information they carry differ from the usual phase diagrams and suggest potential for further aesthetic investigation as well as dynamical information. (Received September 16, 2008)