1023-92-1563   **Alan C Newell** (`anewell@math.arizona.edu`) and **Patrick D Shipman***
(`shipman@math.umd.edu`), Department of Mathematics, Univ. of Maryland, 1306 Math Bldg,
College Park, MD 20742. *An Amplitude-Equation Approach to Phyllotaxis.*

Amplitude equations describe the relevant dynamics of a pattern-forming system near threshold. We derive amplitude
equations from various mechanistic equations suggested for phyllotaxis. This allows for the study of the competition
between ridge, hexagonal, and rhombic planforms associated with phyllotaxis. (Received September 26, 2006)