

1106-VL-1388      **Thomas Bellsky\*** ([thomas.bellsky@maine.edu](mailto:thomas.bellsky@maine.edu)), Department of Mathematics and Statistics,  
University of Maine, Neville Hall 326, Orono, ME 04469. *Stability of localized structure for a  
semi-arid climate model.*

This talk will discuss the interaction of pulses in coupled reaction-diffusion systems, and the application of such systems in modeling the stability of vegetative patterns in semi-arid climates. For a particular family of fast-slow, weakly-damped reaction-diffusion systems, we rigorously derive laws of motion for multi-pulses. Our main result rigorously demonstrates the stability of the manifold of pulse solutions. (Received September 12, 2014)