

1116-92-1135 **Eric Alan Eager*** (eeager@uwlax.edu), 1725 State St., La Crosse, WI 54601. *Stochastic Integral Projection Models: Construction, Simulation and Analysis.*

In this talk we will motivate the use of stochastic integral projection models to study the dynamics of populations with continuous stage structure subject to environmental variability. In using disturbance specialist plants as our case study, we show how populations that use delayed reproduction as a means to combat environmental variability give rise to nonlinear integral projection models whose long-term trajectories converge in measure to an invariant measure, independent of non-zero initial condition. We then discuss the sensitivity of this measure to various characteristics of the environmental variability, and show that long-term measures of population viability have a non-monotone relationship with many of these characteristics. (Received September 17, 2015)