ELENA BRAVERMAN, University of Calgary
On stochastic perturbations of chaotic dynamical systems: is stabilization possible?

Simple one-dimensinal maps can experience a period doubling route to chaos. However, under a stochastic perturbation with a positive mean, this process can be reversed in the sense that a map has a stable blurred 2-cycle for large enough values of the parameter. In the lecture the limit dynamics of this cycle will be described. It will be demonstrated that most well-known population dynamics models (Ricker, truncated logistic, Hassel and May, Bellows maps) have this stable blurred 2-cycle. For a general type of maps, in addition, there may be a blurred stable area near the equilibrium. This is a joint work with A. Rodkina (University of the West Indies, Jamaica).