# Controllability in Lotka-Volterra competitive systems with constrained controls

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We are interested in controlling the asymptotic behaviour of two competing species in an interval by controlling the size of the populations at the boundary. In particular, we want to know if it is possible to eradicate one of the species. Since the boundary controls have to satisfy positivity constraints, classic techniques in control theory cannot be applied. In this talk, we will discuss non-controllability phenomena due to the presence of barrier solutions depending on the length of the interval and the competition coefficients of the systems.

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