

1135-D1-2706 **Eric J Kostelich*** (kostelich@asu.edu), School of Mathematical & Statistical Sciences, Box 871804, Arizona State University, Tempe, AZ 85287-1804. *REU projects on mathematical biology at Arizona State University.*

This talk will survey some projects that undergraduates have attempted over the past 10 years under the auspices of the NSF Computational Science Training for Undergraduates in the Mathematical Sciences and Mentoring through Critical Transition Points initiatives. These programs supported 8-week, full-time research experiences for students with two to three years of previous undergraduate work. The projects involve simulations of social insect networks (using data from ant colonies); dynamics of hormone therapy for prostate cancer; simulations of brain tumor growth using data from a laboratory experiment involving murine glioma; and a model of tumor vasculature growth and collapse. Some of these examples have been incorporated into an undergraduate topics course called Mathematics and Cancer. (Received September 26, 2017)