

1035-91-1912      **Timothy C Reluga\*** (timothy@reluga.org). *Utility functions for vaccination games with delay-strategies*. Preliminary report.

In this talk, I'll review how the combination of classic epidemiology models and Markov decision processes can be used to formulate population games and study public health policy problems. Then I'll show how to calculate utility functions for delay-strategies in a nonlinear McKendrick–von Foerster model of vaccination, describe the consequences of incomplete state information, and compare the results to equivalent calculations for an ordinary differential equation model with hazard-strategies. (Received September 20, 2007)