

962-92-1100

Jia Li*, Department of Mathematical Sciences, University of Alabama in Huntsville, Huntsville, AL 35899. *Two-Strain Influenza Models with Mutation*. Preliminary report.

We consider SIR influenza models with two strains. We assume that a new viral strain is mutated from an existing strain due to immune response. The transmission dynamics of the disease is governed by a system of ordinary and partial differential equations. Under certain hypotheses, the model equations may be transformed to different systems of equations some of which would be mathematically more tractable. In this talk, the model equations and preliminary analytic results will be presented, and some further investigations will be discussed. (Received October 02, 2000)