# On a Parameter Estimation Technique for Solving an Influenza Model

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## Abstract

A discrete time SIR model is proposed in order to study the dynamics of influenza for a given population over a time interval. The total population is divided into susceptible (S), infected (I), and recovered (R) individuals. We consider the effect that a fraction of the infected individuals get an antiviral treatment. Our goal is to estimate the contact rate and effectiveness of treatment with a choice of constant or non-constant noise in the observed data. We present a numerical comparison between the ordinary and generalized least square techniques, and conclude which method works better for a given dataset.

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