1125-39-513 Sabrina Heike Streipert* (shsbrf@mst.edu), Madison, WI 53719, and Martin Bohner.

Susceptible-Infected-Susceptible Model on Time Scales.

We introduce the epidemic model following the hypothesis of the disease flow Susceptible o Infected o Susceptible, short SIS, on time scales. After a brief introduction of time scales, we give a formulation of the SIS-model on time scales for the case of constant population size and varying total population. We present the derivation of the solutions to both cases and discuss the stability of the steady-states. Examples on the discrete and the quantum space are presented to illustrate the results. (Received September 04, 2016)