1138-92-15 **William E Fitzgibbon*** (`fitz@uh.edu`), Department of Mathematics, University of Houston, Houston, TX 77204-3008, and **Jeffrey J Morgan**, **Glenn F Webb** and **Yixiang Wu**. *A Vector-Host Epidemic Model With Spatial Structure and Age of Infection.*

We are concerned with a diffusive age structured model describing spatio-temporal evolution of a disease within geographic region. The disease is transmitted between host and vector populations following a crisscross pattern with an age structure accounting for a period of incubation within the host population. Dispersion of both the host and vector populations with the region is modeled by Fickian Diffusion. Our motivation is to describe the introduction of vector borne diseases such as Zika into previously disease free regions via the introduction of infected hosts. (Received December 27, 2017)