1146-92-76   **Pierre Magal**, **Glenn Webb** and **Yixiang Wu*** (`yixiang.wu@vanderbilt.edu`). *On the Basic Reproduction Number of Reaction-diffusion Epidemic Models.*

The basic reproduction number R_0 serves as a threshold parameter of many epidemic models for disease extinction or spread. In this talk, I define R_0 as the spectral radius of a product of a local basic reproduction number R, and strongly positive compact linear operators with spectral radii one. This definition of R, viewed as a multiplication operator, is motivated by the definition of basic reproduction numbers for ordinary differential equations epidemic models. I will talk about the relation of R_0 and R. (Received January 08, 2019)