
FRED BRAUER, University of British Columbia

Initial exponential growth rates in compartmental epidemic models

We give a complete proof of the relation between the basic reproduction number and the initial exponential growth rate of an epidemic given by Diekmann and Heesterbeek (2000) and Wallinga and Lipsitch (2007). As examples we describe a general SEIR model and a quarantine/isolation model. We also extend the result to epidemic models with heterogeneous mixing.