
Contents

1 Mathematical Studies of Dynamics and Evolution of Infectious Diseases	
<i>Yoh Iwasa, Kazunori Sato, Yasuhiro Takeuchi</i>	1
2 Basic Knowledge and Developing Tendencies in Epidemic Dynamics	
<i>Zhien Ma, Jianquan Li</i>	5
3 Delayed SIR Epidemic Models for Vector Diseases	
<i>Yasuhiro Takeuchi, Wanbiao Ma</i>	51
4 Epidemic Models with Population Dispersal	
<i>Wendi Wang</i>	67
5 Spatial-Temporal Dynamics in Nonlocal Epidemiological Models	
<i>Shigui Ruan</i>	97
6 Pathogen Competition and Coexistence and the Evolution of Virulence	
<i>Horst R. Thieme</i>	123
7 Directional Evolution of Virus Within a Host Under Immune Selection	
<i>Yoh Iwasa, Franziska Michor, Martin Nowak</i>	155
8 Stability Analysis of a Mathematical Model of the Immune Response with Delays	
<i>Edoardo Beretta, Margherita Carletti, Denise E. Kirschner, Simeone Marino</i>	177
9 Modeling Cancer Treatment Using Competition: A Survey	
<i>H.I. Freedman</i>	207
Index	225