



Hacettepe University

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GENERAL SEMINAR

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Mathematical modeling approaches for seasonal exacerbations of bacterial meningitis infection



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15:00



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Yaşar Ataman Hall

The seasonal, periodic or momentary increase in the incidence of an infectious disease, corresponding to seasons or different time periods within the year, is an important process from a public health perspective and characterizes the dynamics of the spread of many infectious diseases. Mathematical modeling techniques are used to understand the multilayered structure of seasonal exacerbations of an infectious disease, and the tools of dynamical systems theory are used to analyze these models. In this talk, after an overview of some approaches in the literature on mathematical modeling of periodic exacerbations of infectious diseases, I will present a mathematical modeling approach for periodic exacerbations of bacterial meningitis and simulations of different scenarios for a possible bacterial meningitis outbreak.
