YEDİTEPE UNIVERSITY

MATHEMATICS DEPARTMENT SEMINARS

A Stability Study by Routh-Hurwitz Criterion and Gershgorin Circles for Infectious Diseases

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Abstract: The mathematical theory of infectious diseases and epidemics has always been interesting for many branches of science. In this talk, we present stabilization problem on a model for Covid-19 by using Routh-Hurwitz criterion and Gershgorin circles. Using Routh-Hurwitz criterion, we prove the necessity of unstability and stability conditions for the model that we extend from an existing one. We give the necessary conditions for stability on this model by using the Gershgorin Circle Theorem and give examples.

Date: 25 December 2024, Wednesday

Time: 13:00

Place: Online - via Google Meet.

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