

Title: Stability by the direct Lyapunov method - known and less known

Abstract

Lyapunov functions are workhorses of the stability theory of dynamical systems. However, only a few possibilities offered by this approach are widely known and used. In this mostly survey talk, we will describe its less-known aspects, such as nondifferentiable Lyapunov functions or inverse Lyapunov theorems, and their applications in mathematical biology.