

LYAPUNOV STABILITY FOR LINEAR PLANAR DISCRETE HAMILTONIAN SYSTEMS

Ağacık Zafer

Department of Mathematics
Middle East Technical University
06800 Ankara, Turkey

Abstract

Lyapunov stability of linear periodic systems is closely related to Lyapunov-type inequalities. In this talk, I will present new Lyapunov-type inequalities for discrete planar linear Hamiltonian systems and then derive stability criteria for the periodic problem by the help of Floquet theory.