Oscillation for a second-order neutral differential equation with impulses

Everaldo De Mello Bonotto Universidade de São Paulo, Brazil

Abstract. We consider a certain type of second-order neutral delay differential systems and we establish two results concerning the oscillation of solutions after the system undergoes controlled abrupt perturbations (called impulses). As a matter of fact, some particular non-impulsive cases of the system are oscillatory already. Thus, we are interested in finding adequate impulse controls under which our system remains oscillatory.