



Positive Solutions of Semipositone Singular Dirichlet Dynamic Boundary Value Problems

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Received: June 25, 2008; Revised: September 3, 2009

Abstract: We obtain a sufficient condition for the existence of a positive solution for a second-order superlinear semipositone singular Dirichlet dynamic boundary value problem by constructing a special cone. As a special case when $\mathbb{T} = \mathbb{R}$, this result includes those of Zhang and Liu [9]. This result is new in a general time scale setting and can be applied to q -difference equations. Two examples are given at the end of this paper to demonstrate the result.

Keywords: *semipositone; cone; time scale; delta derivative; nabla derivative.*

Mathematics Subject Classification (2000): 39A10, 34B10.