

Meeting: 1003, Atlanta, Georgia, SS 26A, AMS-SIAM Special Session on Dynamic Equations on Time Scales; Integer Sequences and Rational Maps, I

1003-34-1509 **Bonita A. Lawrence*** (lawrence@marshall.edu), Marshall University, Department of Mathematics, One John Marshall Drive, Huntington, WV 25733-2560. *Nontrivial Solutions to a Three Point Nonlinear Boundary Value Problem on a Time Scale.* Preliminary report.

Utilizing the Krasnosel'skii–Zabreiko fixed point theorem, the existence of nontrivial solutions for the second order dynamic equation

$$y^{\Delta\Delta} + f(y^\sigma) = 0$$

with three point boundary conditions

$$y(0) = 0, \quad y(p) - y(\sigma^2(1)) = 0$$

is established. The dynamic equation is defined on a time scale \mathbb{T} such that $t \in \mathbb{T} \cap [0, 1]$ and $0 < p < 1$. (Received October 05, 2004)