

**Kaufmann, Eric R.**

**Positive solutions of a three-point boundary-value problem on a time scale.** (English)

Zbl 1047.34015

Electron. J. Differ. Equ. 2003, Paper No. 82, 11 p. (2003).

Let  $\mathbf{T}$  be a time scale such that  $0, T \in \mathbf{T}$ . The author utilizes a theoretic fixed-point theorem in a cone to show the existence of positive solutions of the second-order boundary value problem

$$u^{\nabla\nabla}(t) + a(t)f(u(t)) = 0, \quad t \in (0, T) \cap \mathbf{T},$$

$$u(0) = 0, \quad \alpha u(\eta) = y(T),$$

where  $\eta \in (0, \rho(T)) \cap \mathbf{T}$ , and  $0 < \alpha < T/\eta$ .

Reviewer: Patricia J. Y. Wong (Singapore)

**MSC:**

[34B15](#) Nonlinear boundary value problems for ordinary differential equations

Cited in **31** Documents

[39A12](#) Discrete version of topics in analysis

**Keywords:**

Time scale; boundary value problem; positive solutions.

**Full Text:** [EuDML](#) [EMIS](#)