

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

1003-34-350      **Nickolai Kosmatov\*** (nxkosmatov@ualr.edu), University of Arkansas at Little Rock,  
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*Nonlocal Boundary Value Problems on Time Scales at Resonance.*

Let  $\mathbb{T}$  be a time scale such that  $0, 1 \in \mathbb{T}$ . We apply coincidence degree theory of Mawhin to the nonlinear second order  $m$ -point boundary value problem on a time scale

$$u^{\Delta\nabla}(t) = f(t, u(t), u^{\Delta}(t)) + e(t), \quad t \in (0, 1) \subset \mathbb{T},$$

$$u(0) = 0, \quad u^{\Delta}(1) = \sum_{i=1}^{m-2} \alpha_i u^{\Delta}(\eta_i),$$

where  $f : [0, 1] \times \mathbb{R}^2 \rightarrow \mathbb{R}$  be a function satisfying Carathéodory's conditions and  $e(t)$  is Lebesgue integrable.

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