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

1003-34-172 Johnny Henderson* (Johnny_Henderson@baylor.edu), Department of Mathematics, Baylor University, Waco, TX 76798-7328. Nonlocal Boundary Value Problems for Second Order Dynamic Equations.

Shooting methods are used to obtain solutions of the three-point boundary value problem for the second order dynamic equation, \( y^{\Delta\Delta} = f(x, y^{\Delta}), \) \( y(x_1) = y_1, \) \( y(x_3) - y(x_2) = y_2, \) where \( f : (a, b)_T \times \mathbb{R}^2 \to \mathbb{R} \) is continuous, \( x_1 < x_2 < x_3 \) in \((a, b)_T, y_1, y_2 \in \mathbb{R},\) and \( T \) is a time scale. Conditions are imposed implying that solutions of such problems are unique, when they exist. (Received August 17, 2004)