Nonlinear Dynamics and Systems Theory, **9** (4) (2009) 407–414

The Fell Topology for Dynamic Equations on Time Scales

R.W. Oberste-Vorth *

Department of Mathematics, Marshall University, Huntington, WV 25755, U.S.A.

Received: June 25, 2008; Revised: September 5, 2009

Abstract: In order to study the changing dynamics of solutions of a dynamic equation on time scales as the time scales change, we must determine appropriate topologies on the set of time scales and the set of solutions of dynamic equations. As a first step, we prove a natural characterization of the Fell topology on the space of time scales.

Keywords: *time scales; dynamic equations; Fell topology.*

Mathematics Subject Classification (2000): 39A05, 54B20.