1068-34-322 **Ralph W. Oberste-Vorth*** (oberstevorth@marshall.edu), Department of Mathematics, 1 John Marshall Drive, Huntington, WV 25755. *The Hausdorff-Fell Topology on Time Scales and the Convergence of Solutions of Dynamic Equations.*

We present the Hausdorff-Fell topology on the set of all time scales. In that context, we examine the convergence of solutions of dynamic equations on time scales: consider sequences of dynamic initial value problems

$$x_n^\Delta = f_n(t,x), \quad x_n(t_{0,n}) = x_{0,n}$$

over time scales $\mathbb{T}_n$, where the time scales $\mathbb{T}_n$, the functions f_n, and the initial conditions $(t_{0,n}, x_{0,n})$, converge to a time scale $\mathbb{T}$, a function f, and (t_0, x_0), respectively. We verify the convergence of subsequences $x_{n_k}(t)$ of solutions of these initial value problems to a solution of the limit problem

$$x^\Delta = f(t,x), \quad x_n(t_0) = x_0.$$

Much of this is joint work with B. Lawrence. (Received January 20, 2011)