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

1003-34-1525  Kelli J. Hall* (hall142@marshall.edu), Marshall University, Department of Mathematics, 1 John Marshall Dr., Huntington, WV 25755, Elizabeth R. Duke (duke6@marshall.edu), Marshall University, Department of Mathematics, 1 John Marshall Dr., Huntington, WV 25755, and Ralph W. Oberste-Vorth (oberstevorth@marshall.edu), Marshall University, Department of Mathematics, 1 John Marshall Dr., Huntington, WV 25755. Changing Time Scales: Bifurcations in Second Degree Equations. Preliminary report.

We introduce the idea of using time scales as a parameter to understand the changes in dynamics between difference and differential equations. In particular, we use the times scales $\mathbb{R}_+$ and $\mu\mathbb{Z}_+$ for $0 < \mu \leq 1$, where $\mu = 1$ represents $\mathbb{Z}_+$ and the difference equation, while “$\mu = 0$” represents $\mathbb{R}_+$ and the differential equation. (Received October 05, 2004)