Meeting: 1004, Bowling Green, Kentucky, SS 3A, Special Session on Dynamic Equations on Time Scales and Applications

1004-39-183   **Billur Kaymakcalan*** (`billur@georgiasouthern.edu`), Georgia Southern University, Department of Mathematical Sciences, Statesboro, GA 30460, and **Agacik Zafer** (`zafer@metu.edu.tr`), Department of Mathematics, Middle East Technical University, 06531 Ankara, Turkey. *Langenhop's Inequality and Applications for Dynamic Equations.* Preliminary report.

Langenhop type inequality is given for dynamic equations on time scales. This result is further employed to obtain lower bounds of solutions of certain dynamic equations. As an application, usage of the derived Langenhop's inequality in determining the oscillatory behavior of a damped second order delay dynamic equation is illustrated. The results obtained are important in the qualitative sense. (Received January 24, 2005)