

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

1004-34-255            **Snezhana G. Hristova\*** (hristovas@denison.edu), 685 W. Broadway, apt. H, Granville, OH 43023. *Lyapunov Functions and Hybrid Differential Equations*. Preliminary report.

Lyapunov's functions are used in order to obtain sufficient conditions for boundedness and stability of the solutions of hybrid differential equations. The Razimikhin method is generalized for this purpose. The considered equations are models of processes that are instantaneously perturbed when given levels are reached, and their state additionally depends on the reached level. (Received January 25, 2005)