1025-34-257 Bonita A Lawrence\* (lawrence@marshall.edu), Marshall University, Department of Mathematics, One John Marshall Drive, Huntington, WV 25702, Elvan Akin - Bohner (akin@umr.edu), University of Missouri - Rolla, Department of Mathematics and Statistics, 310 Rolla Building, Rolla, MO 65409, and Zuzana Dosla (dosla@math.muni.cz), Masarykova Univerzita, Janackova nam 2a, 66295 Brno, Czech Rep. Oscillation Criteria of Three -Dimensional Systems. Preliminary report.

The goal of our study is to determine conditions under which the following system has almost oscillatory solutions:

$$\begin{aligned} x^{\Delta}(t) &= a(t)y^{\alpha}(t) \\ y^{\Delta}(t) &= b(t)z^{\beta}(t) \\ z^{\Delta}(t) &= c(t)x^{\gamma}(t). \end{aligned}$$

We will allow for the domain of this system any unbounded time scale,  $\mathbb{T}$ , and assume that  $a, b : \mathbb{T} \to [0, \infty)$  and  $c : \mathbb{T} \to (0, \infty)$  are right dense continuous functions such that a and b satisfy

$$\int_{T}^{\infty} a(t) \,\Delta t = \int_{T}^{\infty} b(t) \,\Delta t = \infty \,, T \in \mathbb{T}.$$
(1)

In addition, we will require  $\alpha, \beta$ , and  $\gamma$  to be ratios of odd positive integers. (Received January 23, 2007)