1116-93-721 **Dylan R Poulsen*** (dpoulsen2@washcoll.edu). *Can an Unstable Control System Be Stabilized By Timing Noise?*

We consider the scalar, linear time invariant control system $\dot{x} = Ax + Bu$, where the control u is a sample-and-hold state feedback rule which updates at nonuniform time steps. We show that even if the system becomes unstable when updated with the uniform time step τ, the system may still be stabilized when updated at non-uniform time steps with an average time step $T > \tau$ if $A < 0$. (Received September 11, 2015)