**Meeting:** 1006, Lubbock, Texas, SS 7A, Special Session on Topology of Dynamical Systems

1006-13-194 **Louis Block** and **James Keesling*** (jek@math.ufl.edu), Department of Mathematics, University of Florida, Gainesville, FL 32611-8105, and **Michal Misiurewicz**. *Adding Machines in the Tent Family of Maps.*

Let $f_s = \min\{s \cdot x, s \cdot (1-x)\}$. We consider these tent maps for the parameter range $1 \leq s \leq 2$. It has been shown by Block, Keesling, and Misiurewicz that for a dense set of parameters $s$, the closure of the forward orbit of the critical point is an adding machine. For each specific adding machine $\Delta_\alpha$ there is a range of the parameter $s$, $a_\alpha \leq s \leq 2$ for which there is a dense set of parameters in that range for which the closure of the orbit of the critical point is the specified $\Delta_\alpha$.

If $s_0$ is a parameter value for which $\Delta_\alpha$ is the closure of the forward orbit of the critical point, then there is a value $\mu_0$ for which $f_{s_0}$ is conjugate to $g_{\mu_0} = \mu_0 \cdot x \cdot (1-x)$. For this value of $\mu_0$ the quadratic map $g_{\mu_0}$ is not infinitely renormalizable. Thus, we have found a new family of parameter values of $\mu$ for which the closure of the forward orbit of the critical point in the quadratic family is an adding machine.

In this talk we will discuss these results and some of their implications for the tent family and for the quadratic family. (Received February 14, 2005)