1046-37-1141   **Oumarou Njoya*** (`njoyaoum@msu.edu`), 444 Division St, East Lansing, MI 48823, and **Zach Flres**. *The Dynamics of Nonlinear Tent-like Maps.*

Consider the general tent-like map given by:

$$F(x) = \begin{cases} cx^b & 0 \leq x < .5 \\ a - ax^b & .5 \leq x < 1 \end{cases} \quad where\ a, b, c\ are\ real$$

In this talk we explore the dynamics of F under iterations. Specifically we give sufficient and necessary conditions for the existence of fixed points and classify them in terms of their behavior (attracting or repelling). Furthermore we provide graphical (bifurcation diagrams and density graphs) and numerical (Lyapunov exponents) evidence for chaotic behavior. Periodic points of period-2 are also classified. (Received September 14, 2008)