

Conformal Dynamics Homework 5  
Math 275 — Harvard University — Fall 2001

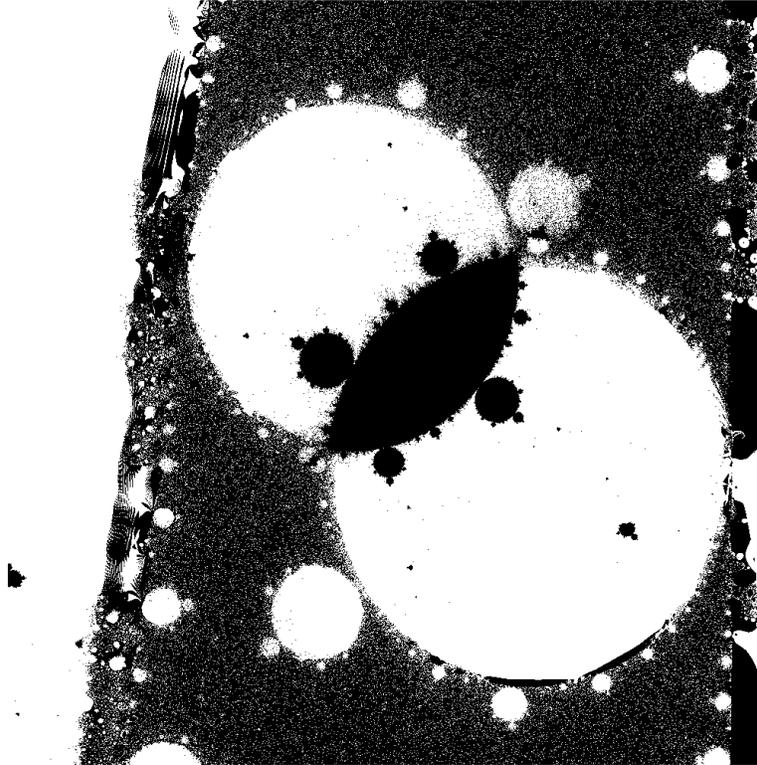


Figure 1. Bifurcations in a family  $f_i(z)$  of rational maps of degree two. In the black region there are two attracting cycles; in the white region, just one. What is happening in the black lune? Why do we see overlapping Mandelbrot sets?

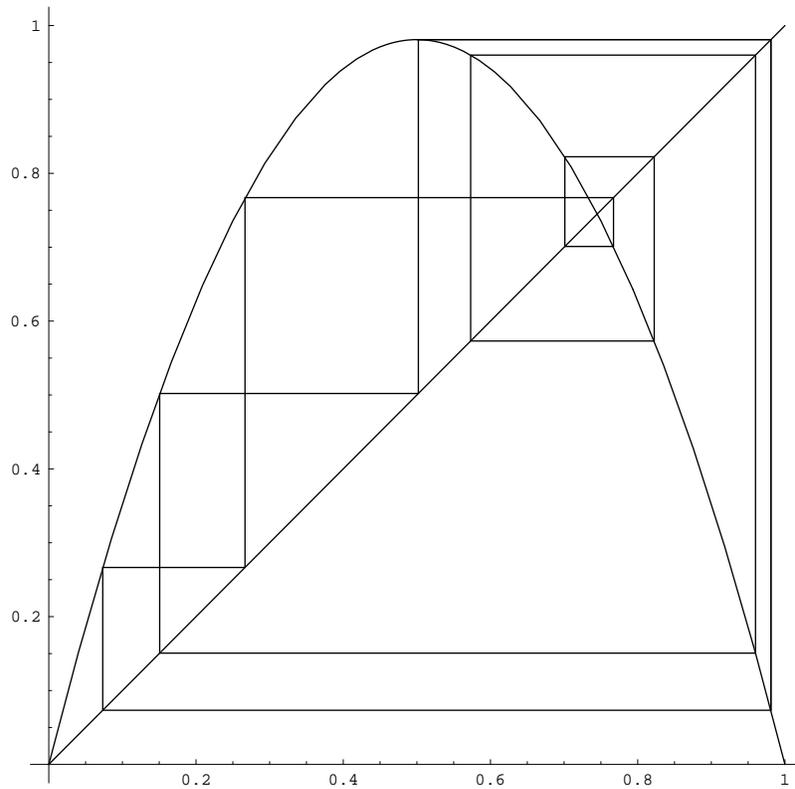


Figure 2. Find the value of  $t$  such that  $f_t(x) = tx(1 - x)$  is critically finite with the kneading sequence shown:  $(2, 9, 3, 0, 7, 5, 4, 6, 8, 1)$ .