

1096-37-1925

Mary E. Wilkerson* (mwilkerso@coastal.edu). *Matings of critically preperiodic quadratic polynomials: dynamics through tile subdivisions*. Preliminary report.

“Mating” is an operation that topologically glues the domains of a polynomial pair in order to obtain a new map on the resulting quotient space. The dynamics of the mated map are then dependent on the two polynomials and the manner in which their domains were glued. In this talk, I will outline a construction using Hubbard trees and finite subdivision rules to examine the dynamics of critically preperiodic quadratic polynomials and their matings: i.e, using tilings to study matings in which two dendritic Julia sets are glued together. We’ll then examine how this construction yields information on the topological behavior of the mating and related rational maps. (Received September 16, 2013)