## Fixed point portraits for laminations of the unit disc.

Md. Abdul Aziz

University of Alabama at Birmingham azizm@uab.edu

Laminations are a combinatorial and topological model for studying the Julia sets of complex polynomials. Every complex polynomial of degree d has d fixed points. From the point of view of laminations, at most d - 1, of these fixed points are peripheral (approachable from outside the Julia set of the polynomial). Hence, at least one of the d fixed points is "hidden" from the laminational point of view. The purpose of this study is to identify, classify and count the possible fix ed point portraits for any lamination of degree d. We will identify the canonical lamination for a given fixed point portrait and will show that there are hyperbolic polynomials that have these simplest laminations.

1

(joint work with John C. Mayer)