The Correspondence Between Locally Unicritical Rotational Polygons and Locally Maximally Multicritical Rotational Polygons

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The purpose of this research is to establish the correspondence between locally unicritical rotational polygons and locally maximally rotational multicritical polygons in a lamination. Laminations are a topological and combinatorial way of modeling complex polynomials. Locally unicritical polygons have an all critical polygon associated with them that is strictly less than the global degree. The correspondence in the global case has been previously shown in [1]. In the local case, it is shown there exists a non-trivial fixed point portrait in the lamination which corresponds to a fixed point in the complex polynomial.
(joint work with John Mayer, Md Abdul Aziz)