

1042-37-204

Araceli Bonifant* (bonifant@math.uri.edu), Department of Mathematics, 9 Greenhouse Road, Suite 3, Kingston, RI 02881, and **John Milnor** (jack@math.sunysb.edu), Stony Brook University, Stony Brook, NY 11794. *Critically Periodic Cubic Polynomials.*

The parameter space S_p for cubic polynomial maps with a marked critical point of period p is a complicated algebraic curve whose genus increases rapidly with p . Fortunately there is a canonical procedure for choosing local coordinate charts, so that we can make local pictures of this parameter space. Each S_p consists of a compact connectedness locus together with finitely many escape region, each biholomorphic to a punctured disk. The parameter rays in the various escape regions provide a tool for studying the dynamics. (Received August 19, 2008)