

IMMERSION OF THE DYNAMICAL TEICHMÜLLER SPACE INTO THE MODULI SPACE OF RATIONAL MAPS

MATTHIEU ASTORG (TOULOUSE)

Abstract : Teichmüller theory's goal is to study deformations of the complex structure of a Riemann surface. In the 80's, McMullen and Sullivan introduced an analogue of this theory in the context of iterations of a rational map f . In particular, they constructed a "dynamical Teichmüller space" which is a simply connected complex manifold, with a holomorphic map F defined on $\text{Teich}(f)$ and taking values in the space of rational maps of the same degree as f , and whose image is exactly the quasiconformal conjugacy class of f . A natural question, raised in their article, is to know whether this map F is an immersion: it turns out the answer is affirmative. A. Epstein has an unpublished proof of this; we will expose a different approach.