V Iberoamerican Congress on Geometry
December 2010, Pucón, Chile

Skinning maps are finite-to-one

David Dumas *

Abstract

We show that Thurston's skinning map for a hyperbolic manifold with nonempty incompressible boundary (of negative Euler characteristic) has finite fibers. The proof includes new results on the holonomy representations of complex projective structures on surfaces, a stratified Kaehler metric on the space of measured geodesic laminations on a surface, and a study of group actions on Lambda-trees arising from valuations on the function fields of algebraic varieties parameterizing representations into SL(2,C).

*Department of Mathematics, Statistics, and Computer Science at the University of Illinois at Chicago, e-mail: ddumas@math.uic.edu