

1105-51-13

Xianfeng David Gu* (gu@cs.stonybrook.edu), 2425 CSE Building, Computer Science Department, Stony Brook University, Stony Brook, NY 11794-4400, and **Feng Luo** (fluo@math.rutgers.edu), Department of Mathematics, Rutgers University, Hill Center-Busch Campus, 110 Frelinghuysen Road, Piscataway, NJ 08854. *Computational Conformal Geometric Methods.*

This survey focuses on different methods in computational conformal geometry. Conformal geometry aims at computing conformal mappings, conformal modules, uniformization, conformal metrics by prescribed curvatures, holomorphic differentials, quasi-conformal mappings, Teichmüller maps and so on. Different computational methods on surfaces will be covered, including harmonic mapping, holomorphic differential, circle packing and discrete Ricci flow, and so on. Theories, computational algorithms and real applications will be briefly introduced. (Received May 23, 2014)