

HYPERBOLIC RANDOM MAPS AND UNICELLULAR MAPS

GOURAB RAY

Uniform infinite maps arise as local limits of uniformly chosen finite maps. Recently there has been keen interest in creating hyperbolic analogues of the uniform infinite planar maps. It is conjectured that uniformly distributed maps on surfaces with genus linear in the number of vertices should converge in the local topology to hyperbolic versions of uniform infinite maps. I will describe several models of such hyperbolic random maps which arise from several directions. Finally I will describe some recent results obtained for unicellular maps in high genus. Partly joint work with Omer Angel, Guillaume Chapuy and Nicolas Curien.