

Meeting: 1003, Atlanta, Georgia, SS 16A, AMS Special Session on Inverse Spectral Geometry, I

1003-53-667 **Eran Makover*** (makovere@ccsu.edu), Department of Mathematical Sciences, Central Connecticut State University, 1615 Stanley Street, New Britain, CT 06050, and **Jeffrey McGowan** (mcgowan@ccsu.edu), Department of Mathematical Sciences, Central Connecticut State University, 1615 Stanley Street, New Britain, CT 06050. *Short Geodesic on Random Riemann surfaces*. Preliminary report.

Short geodesic are impotent in the study of the geometry and the spectra of Riemann surfaces. Bers theorem gives a global bound on the length of the first $3g - 3$ geodesics. We use the construction of Brooks and Makover of Random Riemann surfaces. To investigate the distribution of short geodesic, namely $\langle \log(g) \rangle$ on a random Riemann surfaces. We calculate the expected value of the shortest geodesic, and get some estimates of the distribution of length of all the short geodesics. (Received September 27, 2004)