ALEXEY KOKOTOV, Concordia University
Polyhedral surfaces and determinant of Laplacian

The zeta-regularized determinant of the Laplacian on a compact polyhedral surface (a closed orientable surface of genus g glued from Euclidean triangles) is studied. We derive a formula for the ratio of two determinants corresponding to two conformally equivalent polyhedra (an analog of classical Polyakov's formula for two conformally equivalent smooth metrics). This formula implies the reciprocity law for polyhedra which is closely related to the classical Weil reciprocity law for harmonic functions with logarithmic singularities.