## 1070-51-330 **Ren Guo\*** (guoxx170@umn.edu), Vincent Hall, 206 Church st. SE, Minneapolis, MN 55455. Inversive distance circle packings and hyperbolic volume.

A Euclidean or hyperbolic circle packing on a triangulated closed surface with prescribed inversive distance is determined by its cone angles. It is established by using a variational principle whose energy functional is related to the volume of some hyperbolic polyhedra. (Received February 15, 2011)