1158-57-101 **Tejas Kalelkar*** (`tejas@iiserpune.ac.in`) and **Advait Phanse**. *Pachner moves on geometric triangulations of constant curvature manifolds.*

A geometric triangulation of a Riemannian manifold is a triangulation by totally geodesic simplexes. A Pachner move is a local combinatorial transformation of a triangulation. We show that up to derived subdivisions any two geometric triangulations of a constant curvature compact manifold are related by Pachner moves through geometric triangulations. We also give an explicit bound on the number of Pachner moves needed to relate two geometric triangulations of such a manifold. This bound is in terms of the dimension of the manifold, the number of top dimensional simplexes and bounds on the lengths of edges. This gives an algorithm to check if two geometrically triangulated closed hyperbolic or low dimensional spherical manifolds are isometric or not. (Received February 25, 2020)