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**Benjamin J Benoy\*** (benoy@math.ucsb.edu), University of Redlands, Department of Mathematics, 1200 East Colton Ave, P.O. Box 3080, Redlands, CA 92373. *A projective version of the Poincare polyhedron theorem.* Preliminary report.

I will discuss a generalization of Poincare's polyhedron theorem from the constant curvature geometries to the projective setting. Given a collection of convex polyhedra in Real Projective space, and a scheme for gluing faces via projective transformations, I will give conditions for the resulting quotient to have a real projective structure compatible with the gluings. The main condition concerns the holonomy around a codimension two face and is a direct analogue of the angle sum condition in the constant curvature version of the theorem. (Received July 22, 2008)