984-57-155   **Michael Davis**, **Tadeusz Januszkiewicz** and **Richard A Scott*** (rscott@schubert.scu.edu).
Mock reflection groups and blow-ups of real hyperplane arrangements.

Let $\mathcal{H}$ be a collection of hyperplanes in RP^n corresponding to a finite reflection group W. Performing an iterated blow-up of RP^n along intersections of the hyperplanes often results in a manifold that admits a piecewise Euclidean metric of nonpositive curvature. In particular, such a manifold is a $K(\pi, 1)$-manifold. We shall discuss motivating examples of this phenomenon and show that the fundamental groups π are related to a class of groups that are formally very similar to classical reflection groups. (Received January 20, 2003)