999-57-191 **Brent Everitt**, **John Ratcliffe** and **Steven Tschantz\*** (`Steven.Tschantz@Vanderbilt.edu`), Dept. of Math, Vanderbilt University, Nashville, TN 37240. *The Smallest Hyperbolic 6-Manifolds.*

By gluing together copies of an all-right angled Coxeter polytope and taking the quotient by a free action, an open hyperbolic 6-manifold with Euler characteristic -1 is constructed. This gives an example of a complete hyperbolic 6-manifold of minimal volume. (Received August 23, 2004)