999-57-105 **Dubravko Ivanšić*** (`dubravko.ivansic@murraystate.edu`), Department of Mathematics and Statistics, Murray State University, Murray, KY 42071, **John G. Ratcliffe** (`ratclifj@math.vanderbilt.edu`), Department of Mathematics, 1326 Stevenson Center, Vanderbilt University, Nashville, TN 37240, and **Steven T. Tschantz** (`tschantz@math.vanderbilt.edu`), Department of Mathematics, 1326 Stevenson Center, Vanderbilt University, Nashville, TN 37240. *Hyperbolic structure on some complements of tori and Klein bottles in the 4-sphere.*

Many noncompact finite-volume hyperbolic 3-manifolds are known to be link complements in the 3-sphere. Generalizing to dimension 4, we exhibit about a dozen examples of finite-volume hyperbolic 4-manifolds that are topologically complements of "links" in the 4-sphere. The links are various combinations of several tori and Klein bottles, or just tori. All of the examples are orientable double covers of some of the 1149 unorientable hyperbolic 4-manifolds that were previously constructed by Ratcliffe and Tschantz. (Received August 16, 2004)