980-57-103   **Michael W. Davis*** (`mdavis@math.ohio-state.edu`), The Ohio State University, Department of Mathematics, 231 West 18th Avenue, Columbus, OH 43210-1174, **Tadeusz Januszkiewicz** (`tjan@math.uni.wroc.pl`), Insytut Matematyczny, Uniwersytet Wroclawsi, Pl. Grunwaldzki2/4 50-384 Wroclaw, Poland, and **Ian J. Leary** (`I.J.Leary@maths.soton.ac.uk`), University of Southampton, Faculty of Mathematical Studies, SO17 1BJ Southampton, England. *The ℓ^2-cohomology of hyperplane complements.* Preliminary report.

Given the complexification of an essential arrangement of affine hyperplanes in $mathbf R^n$, we compute the reduced ℓ^2-cohomology of the universal cover of a compact core of the hyperplane complement. The answer is that its ℓ^2-cohomology vanishes in all dimensions except n and that in dimension n the ℓ^2-Betti number is the number of bounded components of the real hyperplane complement in $mathbf R^n$. (Received August 07, 2002)