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Xun Dong* (xundong@math.miami.edu), University of Miami, Department of Mathematics, P.O. Box 249085, Coral Gables, FL 33124. *The bounded complex of an affine oriented matroid.*

We prove that the bounded complex of an affine oriented matroid is pure and collapsible. We also generalize Zaslavsky's Central Decomposition Theorem for hyperplane arrangements to affine oriented matroids. Finally we show that the bounded complex of a uniform affine oriented matroid is homeomorphic to a ball, this was conjectured by Zaslavsky for the special case of simple hyperplane arrangements. (Received September 26, 2005)