1067-16-1815 **Andrew Conner***, Department of Mathematics, University of Oregon, Eugene, OR 97403. *The $\mathcal{K}_2$ Property for Face Rings.* Preliminary report.

A face ring is a factor algebra of a commutative polynomial algebra by a square-free monomial ideal whose generators correspond to non-faces of a simplicial complex Δ. Quadratic face rings are Koszul. $\mathcal{K}_2$ algebras are a natural generalization of Koszul algebras. We will describe topological conditions on Δ under which the associated face ring is $\mathcal{K}_2$. (Received September 21, 2010)