1054-55-226   **Brad S Shelton***, Brad Shelton, Department of Mathematics, University of Oregon, Eugene, OR 97403, and **Hal Sadofsky**, Eugene, OR 97403. *The Koszul property as a homeomorphism invariant and a measure of singularities.*

Let X be a topological space which admits a regular CW structure $C(X)$. Let K be a field. We make some minor technical assumptions about X. We associate to the CW structure $C(X)$ a quadratic K-algebra $A(C(X))$. The relationship between the Koszul property of $A(C(X))$ and the combinatorial structure of $C(X)$ was established earlier in the work of Cassidy, Phan and Shelton. In this talk we announce that the Koszul property for $A(C(X))$ is a homeomorphism invariant of X and furthermore that the Koszul property implies that X has no singularities of a specific type. (Received September 14, 2009)