1073-16-152   **Padmini Veerapen*** (`pveerapen@uta.edu`), TX , and **Michaela Vancliff** (`vancliff@uta.edu`).
A Notion of Rank for Noncommutative Quadratic Forms. Preliminary report.

To every (commutative) quadratic form is associated a symmetric matrix, and one has the standard notions of rank and determinant function defined on the matrix, and, thus, on the quadratic form. In a recent paper by T. Cassidy & M. Vancliff, the notion of quadratic form is extended to the noncommutative setting. In this talk, we will see that a notion of rank (μ-rank) may be defined on such noncommutative quadratic forms. We use our definition of μ-rank of a noncommutative quadratic form to establish a connection between the points in the zero locus of the relations of a graded skew Clifford algebra A and quadratic forms of μ-rank at most two associated to A. (Received July 31, 2011)