## 1077-16-2846 Padmini P Veerapen\* (pveerapen@uta.edu), 411 S. Nedderman Drive, 478 Pickard Hall, Arlington, TX 76019-0408, and Michaela Vancliff. 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 define a notion of rank  $(\mu$ -rank) on such noncommutative quadratic forms. We use our definition of  $\mu$ -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  $\mu$ -rank at most two associated to A. (Received September 22, 2011)