COLLOQUIUM

Speaker: **Dr. Manizheh Nafari, Central State University**

Title: **(Regular) Graded Skew Clifford Algebras of Low Global Dimension**

Date: **Friday, March 31, 2017**

Room/Time: **Meet–n–Greet:** **2:30 p.m.** **Room 222 MM**
Talk: **3:00 p.m.** **Room 224 MM**

Host: **Dr. K.T. Arasu**

ABSTRACT:

M. Artin, W. Schelter, J. Tate, and M. Van den Bergh introduced the notion of non-commutative regular algebras, and classified regular algebras of global dimension 3 on degree-one generators by using geometry (i.e., point schemes) in the late 1980's. In 2010, T. Cassidy and M. Vancliff generalized the notion of a graded Clifford algebra and called it a graded skew Clifford algebra.

In this talk, we prove that all classes of quadratic regular algebras of global dimension 3 contain graded skew Clifford algebras or Ore extensions of graded skew Clifford algebras of global dimension 2. We also show that a certain subalgebra R of a regular graded skew Clifford algebra A is a twist of the polynomial ring if A is a twist of a regular graded Clifford algebra B. We have an example that demonstrates that this can fail when A is not a twist of B.

SPEAKER BIO:

Dr. Nafari received her Ph.D. in Mathematics from the University of Texas at Arlington in August 2011. Then she worked as a visiting assistant professor at the university of Toledo and DePaul University. She joined Central State University as a tenure-track assistant professor in August 2016. Her research interests include noncommutative algebra, noncommutative algebraic geometry, and quantum computing.