1112-05-312 **Tyler Lewis Mitchell*** (tmitchell2@niu.edu). *Fusion Rings with Degrees 1 and 4.*

Fusion rings are a class of table algebras that generalize group rings with basis the group and character rings of a finite group with basis the irreducible characters. Examples are the Grothendieck rings of fusion categories, algebraic structures that are related to conformal field theory. When considering the character ring of a group as a fusion ring, the usual degree of a character coincides with the value assigned by the degree map. Hence classifying fusion rings based on the degree set is a generalization of classifying groups based on the degrees of the irreducible characters. The main theorem classifies real fusion rings with degrees 1 and 4 such that all stabilizers have the same order (so-called *stabilizer-regular* fusion rings). (Received August 07, 2015)