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Angela Antonou* (aantonou@stfrancis.edu), 500 Wilcox St., Joliet, IL 60435, and **Harvey I. Blau**. *A Characterization of Standard Table Algebras Based on Conditions on Their Multiplicities.*

This talk contributes to the program of determining the structure of a standard table algebra (in particular, an adjacency algebra) from assumptions on the multiplicities and/or degrees of its irreducible characters. We show that a noncommutative standard table algebra with exactly one character that has nontrivial multiplicity, and also has degree two, must have a closed subset of cardinality two or three with at most four non-singleton cosets. The various configurations lead to several infinite families, in each of which all structure constants and the representation corresponding to the character of degree two are calculated explicitly from the degrees of the elements in these cosets. The sub-families that are integral are also found. (Received August 07, 2015)