1125-VI-937 **Youngsoo Kim*** (`kimy@mytu.tuskegee.edu`) and **Byunghoon Lee** (`blee@mytu.tuskegee.edu`). *Zero-Sum Coefficient Derivations in Three Variables of Triangular Algebras.*

It is known that a Jordan derivation of a triangular algebra is a derivation and that a Lie derivation or a Lie triple derivation of a triangular algebra is in the standard form, that is, the sum of a derivation and a central map. Generalizing the notions of Jordan or Lie derivations, one obtains f-derivations where f is a multilinear polynomial of several variables. Benkovič showed that if the sum of the coefficients of f is nonzero, every f-derivation of triangular algebras is a derivation (under mild assumptions).

We considered the case when the sum of the coefficients of f is zero and f is a multilinear polynomial of three variables. We will present sufficient conditions on the coefficients to ensure an f-derivation of a triangular algebra is a derivation or in standard form. We will also present a special case that has not been resolved yet and is still an open problem. (Received September 13, 2016)