Behrooz Fadaee, Hoger Ghahramani and Wu Jing* (wjing@uncfsu.edu). Lie triple centralizers on generalized matrix algebras.

Let \mathcal{A} be an algebra. A linear map $\phi : \mathcal{A} \to \mathcal{A}$ is called a Lie triple centralizer if $\phi([[a,b],c]) = [[\phi(a),b],c]$ holds for all $a,b,c \in \mathcal{A}$. We give the general form of Lie triple centralizers on a generalized matrix algebra \mathcal{U} and under some mild conditions on \mathcal{U} we present a necessary and sufficient condition for a Lie triple centralizer to be proper. As an application, we characterize generalized Lie triple derivations on generalized matrix algebras. (Received August 30, 2021)