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Sougata Dhar* (sougata.dhar@uconn.edu), 341 Mansfield Road, Room 406, Department of Mathematics, University of Conn, Storrs, CT 06269, and **Jessica Stewart Kelly** and **Qingkai Kong**. *Lyapunov-type Inequalities for Third Order Linear and Half-Linear Difference Equations*.

We derive Lyapunov-type inequalities for third order linear and half-linear difference equations. The results are significant as the existing work on Lyapunov-type inequalities for difference equations is limited only to even order cases. As the techniques for even order difference equations are not applicable to odd order difference equations, the methods used here are novel. The resulting inequalities utilize $q_+(t)$ and $q_-(t)$. (Received August 18, 2020)