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Youssef Raffoul* (youssef.raffoul@notes.udayton.edu), 300 College Park, Dayton, OH 45469-2316. *Inequalities That Lead To Exponential Stability And Instability In Delay Difference Equations.*

We use Lyapunov functionals to obtain sufficient conditions that guarantee exponential stability of the zero solution of the delay difference equation

$$x(t+1) = a(t)x(t) + b(t)x(t-h)$$

The highlight of the paper is relaxing the condition $|a(t)| < 1$. Instability criteria of the zero solution is obtained. Moreover, we will provide an example, in which we show that our theorems provide an improvement of some of the recent literature.

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