

Explicit oscillation criteria for a delay difference system

Hideaki Matsunaga

Department of Mathematical Sciences
Osaka Prefecture University
Sakai 599-8531, Japan
`hideaki@ms.osakafu-u.ac.jp`

The oscillation of all solutions of a linear autonomous difference system with delay is studied. Explicit necessary and sufficient conditions in terms of the coefficient matrix and the delay are established, which are some extensions of the previous results for scalar difference equations ([1], [2]).

[1] G. Ladas, Explicit conditions for the oscillation of difference equations, *J. Math. Anal. Appl.* 153 (1990), 276–287.

[2] G. Ladas, L. Pakula and Z. Wang, Necessary and sufficient conditions for the oscillation of difference equations, *Panamer. Math. J.* 2 (1992), 17–26.