1062-39-9   **Tyrus Berry*** (`tyrus.berry@gmail.com`), Science and Technology 1 Room 203, Fairfax, VA 22030, and **Timothy Sauer**, Science and Technology 1 Room 203, Fairfax, VA 22030.
Convergence of Periodically-Forced Rank-Type Equations.

Consider a difference equation which takes the k-th largest output of m functions of the previous m terms of the sequence. If the functions are also allowed to change periodically as the difference equation evolves this is analogous to a differential equation with periodic forcing. A large class of such non-autonomous difference equations are shown to converge to a periodic limit which is independent of the initial condition. The period of the limit does not depend on how far back each term is allowed to look back in the sequence, and is in fact equal to the period of the forcing. (Received May 14, 2010)