

1124-39-119

**Candace M. Kent\*** ([cmkent@vcu.edu](mailto:cmkent@vcu.edu)), 3510 Hanover Avenue, Richmond, VA 23221. *A Proposal for an Application for a Max-Type Difference Equation*. Preliminary report.

Difference equations with the maximum function, unlike differential equations with the maximum function, have no known applications. We propose, for the sake of dialogue, that the particular nonautonomous max-type difference equation

$$x_{n+1} = \max \left\{ \frac{A_n}{x_n}, \frac{B_n}{x_{n-1}} \right\}, \quad n = 0, 1, \dots,$$

where  $A_n$  and  $B_n$  are positive periodic sequences and  $x_{-1}, x_0 \in (0, \infty)$ , may serve as a model of the onset and offset of a seizure as is seen, for example, in mesial temporal lobe epilepsy. (Received September 03, 2016)