

요 약

In this talk we presents some historic results and the new result and the computer experiments about the global behavior of the solutions of some rational third order difference equation. We prove that every positive solution of the third order rational difference equation

$$x_{n+1} = \frac{\beta x_n + x_{n-2}}{A + Bx_n + x_{n-2}}$$

converges to the positive equilibrium point

$$\bar{x} = \frac{\beta + 1 - A}{B + 1},$$

where $0 < \beta \leq B, 1 < A < \beta + 1$.