

**Stević, Stevo**

**Existence of nontrivial solutions of a rational difference equation.** (English) Zbl 1131.39009  
*Appl. Math. Lett.* 20, No. 1, 28-31 (2007).

The author determines the asymptotic behaviour of a special solution of

$$x_{n+1} = (x_n + x_{n-1} + x_{n-2}x_{n-3}) / (x_n x_{n-1} + x_{n-2} + x_{n-3})$$

which confirms a conjecture of *L. Ladas* [*J. Difference Equ. Appl.* 4, No. 5, 497-499 (1998; [Zbl 0925.39004](#))] concerning the existence of a solution being not eventually constant.

Reviewer: [Lothar Berg \(Rostock\)](#)

**MSC:**

**39A11** Stability of difference equations (MSC2000)

**39A20** Multiplicative and other generalized difference equations, e.g., of Ly-  
ness type

Cited in **1** Review  
Cited in **82** Documents

**Keywords:**

[Putnam difference equation](#); [global asymptotic stability](#); [equilibrium point](#); [positive solution](#); [nontrivial solutions](#)

**Full Text:** [DOI](#)

**References:**

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- [2] K. Berenhaut, S. Stević, The global attractivity of a higher order rational difference equation, *J. Math. Anal. Appl.* (in press)
- [3] Berg, L., *Asymptotische darstellungen und entwicklungen*, (1968), Dt. Verlag Wiss. Berlin · [Zbl 0165.36901](#)
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