

Zudilin, V. V.

Difference equations and the irrationality measure of numbers. (English. Russian original)

Zbl 0910.11032

Lupanov, O. B. (ed.), Analytic number theory and applications. Collected papers in honor of the sixtieth birthday of Professor Anatolii Alexeevich Karatsuba. Moscow: MAIK Nauka/Interperiodica Publishing, Proc. Steklov Inst. Math. 218, 160-174 (1997); translation from Tr. Mat. Inst. Steklova 218, 165-178 (1997).

The main result of this paper is that under some special conditions, the limit of the quotient of two linearly independent solutions of a certain difference equation is an irrational number. Moreover the irrationality measures for several special cases of such limits of quotients are estimated.

For the entire collection see [Zbl 0907.00013].

Reviewer: [Jaroslav Hančl \(Ostrava\)](#)

MSC:

[11J82](#) Measures of irrationality and of transcendence

[39A10](#) Additive difference equations

[11J72](#) Irrationality; linear independence over a field

Cited in **3** Documents

Keywords:

[difference equation](#); [irrational number](#); [irrationality measures](#)