
Zbl 621.10041

Erdős, Paul; Sárközy, A.

Problems and results on additive properties of general sequences. II. (In English)

Acta Math. Hung. 48, 201-211 (1986). [0236-5294]

Let $a_1 < a_2 < ...$ be an infinite sequence of positive integers and $R(n)$ be the number of solutions of $a_i + a_j = n$. In part I [Pac. J. Math. 118, 347-357 (1985; Zbl 569.10032)] the authors proved that $R(n)$ cannot be too regular in the sense $R(n) = F(n) + o(\sqrt{F(n)})$ cannot hold for "nice" functions $F(n)$. In part II a probabilistic construction is presented to show that the above result is essentially best possible.

A.Balog

Classification:
11B13 Additive bases
11B83 Special sequences of integers and polynomials
11K65 Arithmetic functions (probabilistic number theory)
00A07 Problem books

Keywords:
additive representations of integers; infinite sequence; number of solutions