

Zbl 483.10014

Erdős, Paul; Richmond, B.

Partitions into summands of the form $[m\alpha]$. (In English)

**Numerical mathematics and computing, Proc. 7th Manitoba Conf.,
Winnipeg/Can. 1977, Congr. Numerantium 20, 371-377 (1978).**

[For the entire collection see Zbl 465.00021.]

Asymptotic estimates for the number of partitions of the integer n into summands chosen from an arithmetic progression have been derived by several authors. In this note we investigate a natural extension which has not previously appeared in the literature. We study the asymptotic behaviour of the numbers $p_\alpha(n)$ and $q_\alpha(n)$. The number of partitions of n into summands and distinct summands, respectively, chosen from the sequence $[m\alpha], m = 1, 2, \dots$ where $\alpha > 1$ is an irrational number and $[x]$ denotes the largest integer $\leq x$. If $\gamma = \alpha - [\alpha]$ then for almost all $\gamma \in (0, 1)$ in the Lebesgue sense we obtain asymptotic formulae for $p_\alpha(n)$ and $q_\alpha(n)$.

Classification:

11P81 Elementary theory of partitions

Keywords:

asymptotic estimates; number of partitions; arithmetic progression