MR1429464 (97m:11005) 11A07 (11N64)
Indlekofer, Karl-Heinz (D-PDRB); Fehér, János (H-PECS); Stachó, László L. (H-SZEG-B)
On sets of uniqueness for completely additive arithmetic functions. (English summary)

Let $q > 1$ be an integer. The authors define the mod$_q$ uniqueness sets with respect to the class of completely additive functions: $A \subseteq \mathbb{N}$ is a set of mod$_q$-uniqueness if for each completely additive $f$ taking integer values, $f(a) \equiv 0 \mod q$ for every $a \in A$ implies that $f(n) \equiv 0 \mod q$ for every $n \in \mathbb{N}$. They prove (Theorem 1) that $A$ is a set of mod$_q$-uniqueness if every $n \in \mathbb{N}$ can be written as $n = L^q \prod_{j=1}^{s} a_j^{r_j}$, where $L$ is a positive rational number, $a_j \in A$ ($j = 1, \cdots, s$) and $r_j \in \{0, 1, \cdots, q-1\}$ ($j = 1, \cdots, s$).

Reviewed by I. Kátai

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