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Title: On the distribution of integers with missing digits under hereditary sum of digits function

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The aim of this work is to estimate the cardinality of the set of integers with missing digits under an arithmetical constraint on their hereditary sum of digits. This proves in particular a theorem on the well-distribution in residue classes and on the equidistribution modulo 1 of the sequences $(w(n)\alpha)_{n \in \mathcal{W}_{\mathcal{D}}}$ and $(n\alpha)_{n \in \mathcal{W}_{\mathcal{D}}, w(n) \equiv r \pmod{m}}$, where α is an irrational number, r and m are integers, w denotes the hereditary sum of digits function, and $\mathcal{W}_{\mathcal{D}}$ is the set of integers with missing digits.

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