Year: 2019 | **Vol.: 94** | **Fasc.: 3-4**

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

Author(s): Karam Aloui and Firas Feki

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 $(n\alpha)_{n\in\mathcal{W}_\mathcal{D},w(n)\equiv r \mod m}$, 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.

Address:
Karam Aloui
Technische Universität Wien
E104 – Institut für Diskrete
Mathematik und Geometrie
Wiedner Hauptstr. 8
1040 Wien
Austria
and
Université de Sfax
Faculté des Sciences de Sfax
Route Soukra, B.P. 1171
Sfax 3000
Tunisia

Address:
Firas Feki
Université de Sfax
Faculté des Sciences de Sfax
Route Soukra, B.P. 1171
Sfax 3000
Tunisia