

(λ, μ) -UNIFORMLY DISTRIBUTED DOUBLE SEQUENCES

FATIH NURAY

Abstract. In this paper, we introduce and study (λ, μ) -uniformly distributed and (λ, μ) -well distributed double sequences. We also define the concept of A -uniformly distributed double sequence.

Mathematics subject classification (2020): 11B50, 40A05.

Keywords and phrases: Double sequence, uniformly distributed sequence, well distributed sequence.

REFERENCES

- [1] A. ALOTAIBI, A. M. ALHAHILI AND S. A. MOHIUDDINE, *Generalized statistical convergence of double sequences in paranormed spaces*, Int. J. Anal. Appl., **17**, 5 (2019), 711–721.
- [2] F. BAŞAR, *Summability Theory and its Applications*, 2nd ed., CRC Press/Taylor and Francis Group, 2022, in press.
- [3] L. LEINDLER, *Über die de la Vallée-Poussinsche Summierbarkeit allgemeiner Orthogonalreihen*, Acta Math. Acad. Sci. Hungar. **16** (1965), 375–387.
- [4] H. J. HAMILTON, *Transformations of Multiple Sequences*, Duke Math. J., **2** (1936), 29–60.
- [5] L. KUIPERS AND N. NEIDERREITER, *Uniform Distribution of sequences*, John Wiley and Sons, Inc. 1974.
- [6] G. LORENTZ, *A contribution to the theory of divergent sequences*, Acta Math., **29** (1968), 147–162.
- [7] L. MIŠÍK, Š. PORUBSKÝ AND O. STRAUCH, *Uniform Distribution of the weighted sum-of-digit functions*, Unif. Distrib. Theory, **16**, 1 (2021), 93–126.
- [8] F. MÓRICZ AND B. E. RHOADES, *Almost convergence of double sequences and strong regularity of summability matrices*, Math. Proc. Cambridge Philos. Soc., **104**, 2 (1988), 283–294.
- [9] M. MURSALEEN AND F. BAŞAR, *Sequence Spaces: Topics in Modern Summability Theory*, Series: Mathematics and Its Applications, CRC Press, Taylor and Francis Group, Boca Raton · London · New York, 2020.
- [10] G. M. PETERSEN, *Almost convergence and uniformly distributed sequences*, Quart. J. Math. **2**, 7 (1956), 188–191.
- [11] G. M. PETERSEN AND M. T. MCGREGOR, *On the structure of well distributed sequences*, Nieuw. Arch. Wisked. **3**, 11 (1963), 64–67.
- [12] G. M. PETERSEN AND M. T. MCGREGOR, *On the structure of well distributed sequences (II)*, Indag. Math. **26** (1964), 477–487.
- [13] G. M. PETERSEN AND M. T. MCGREGOR, *On the structure of well distributed sequences (III)*, Indag. Math. **28**, (1966), 42–48.
- [14] G. M. PETERSEN, *On the structure of well distributed sequences (IV)*, Indag. Math. **29** (1967), 128–131.
- [15] G. M. PETERSEN, *On the structure of well distributed sequences (V)*, Indag. Math. **29** (1967), 229–233.
- [16] G. M. ROBISON, *Divergent Double Sequences and Series*, Trans. Amer. Math. Soc. **28** (1926), 50–73.
- [17] H. WEYL, *Über die Gleichverteilung von Zahlen mod 1*, Math. Ann. **77** (1916), 313–352.