

TAUBERIAN REMAINDER THEOREMS FOR THE (\overline{N}, p) SUMMABILITY METHOD

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In this study some Tauberian conditions obtained to deduce $x \in m^\lambda$ from $(\overline{N}, p)x \in m^\lambda$. The results generalize the results proved by Meronen and Tammeraid [9].

REFERENCES

- [1] İ. ÇANAK, Ü. TOTUR, *Some Tauberian theorems for the weighted mean methods of summability*, Comput. Math. Appl. **62** (2011), 2609–2615.
- [2] G. KANGRO, *A Tauberian remainder theorem for the Riesz method*, Tartu Riikl. Ül. Toimetised **277** (1971), 155–160.
- [3] I. TAMMERAID, *Tauberian theorems with a remainder term for the Cesàro and Hölder summability methods*, Tartu Riikl. Ül. Toimetised **277** (1971), 161–170.
- [4] A. ŠELETSKI AND A. TALI, *Comparison of speeds of convergence in Riesz-type families of summability methods. II.*, Math. Model. Anal. **15(1)** (2010), 103–112.
- [5] O. MERONEN AND I. TAMMERAID, *Generalized Euler-Knopp method and convergence acceleration*, Math. Model. Anal. **11(1)** (2006), 87–94.
- [6] O. MERONEN AND I. TAMMERAID, *Generalized Nörlund method and convergence acceleration*, Math. Model. Anal. **12(2)** (2007), 195–204.
- [7] O. MERONEN AND I. TAMMERAID, *Generalized linear methods and gap Tauberian remainder theorems*, Math. Model. Anal. **13(2)** (2008), 223–232.
- [8] O. MERONEN AND I. TAMMERAID, *Several theorems on λ -summable series*, Math. Model. Anal. **15(1)** (2010), 97–102.
- [9] O. MERONEN AND I. TAMMERAID, *General control modulo and Tauberian remainder theorems for $(C, 1)$ summability*, Math. Model. Anal. **18(1)** (2013), 97–102.
- [10] M. DIK, *Tauberian theorems for sequences with moderately oscillatory control moduli*, Math. Morav. **5** (2001), 57–94.

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