IDEAL CONVERGENCE AND MATRIX SUMMABILITY

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These results were obtained jointly with Rafał Filipów.

We examine relationship between ideal convergence and matrix summability in the realm of bounded and unbounded sequences. We present the Problem 5 from The Scottish Book [3], stated by Mazur, that can be described as "is the notion of statistical convergence of bounded sequences equivalent to some matrix summability method?"

We investigate the claims written by Mazur in the book that would lead to the negative answer to that problem and present the results of Khan and Orhan [2], which gave us a positive answer to the Problem 5 from The Scottish Book.

We also examine when ideal convergence is equal to either intersection or union of some matrix summability methods. In particular, we solve a problem posed by Gogola, Mačaj and Visnyai [1].

References

[1] J. Gogola, M. Mačaj, and T. Visnyai, *On $\mathcal{I}_c^{(q)}$-convergence*, Ann. Math. Inform. 38 (2011), 27–36.

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