

Editorial **Matrix Transformations, Measures of Noncompactness, and Applications**

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The significance of the theory of matrix transformations has been strikingly demonstrated in various contexts, for example, in Fourier analysis, analytic continuation, quantum mechanics, probability theory, and approximation theory. Also the theory of matrix transformations on one hand and measures of noncompactness on the other hand are successfully linked to obtain necessary and sufficient conditions for matrix maps between certain sequence spaces of a general class to be compact operators. Recently, these results on compact matrix operators have become a useful tool in the study of infinite system of differential and integrodifferential equations in sequence spaces.

The paper of Y. Liang et al. is concerned with the existence of positive solutions for the initial value problem of fractional evolution equation with noncompact semigroup in a Banach space.

The paper of M. Ertürk and V. Karakaya presents also existence of *n*-tuplet coincidence points in the framework of intuitionistic fuzzy normed space.

The issue contains also two papers related to approximation theory. The paper by A. Alotaibi et al. is devoted to study the Korovkin type approximation theorem for periodic functions of two variables by using the notion of statistical summability (C, 1, 1). The second paper, written by M. A. Alghamdi, applies the notion of σ -convergence to obtain Korovkin type approximation theorem for function of two variables. The author of that paper constructs an example in support of his result by considering classical Bernstein polynomials of two variables.

The paper by V. Karakaya and F. Altun, which we are going to describe briefly, discusses some basic properties of the modular on the space $\ell_{\rho\Delta}(u, v, p)$. The authors of that paper investigated some relationships between the modular and the Luxemburg norm on $\ell_{\rho\Delta}(u, v, p)$ and also studied some geometric properties on this space.

Finally, the paper written by F. Gürsoy and V. Karakaya used Kirk multistep-SP and Kirk-S iterative algorithms to obtain some convergence and stability results.

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