

1010-41-10

George A Anastassiou* (ganastss@memphis.edu), Dr. George Anastassiou, UNiversity of Memphis, Department of Mathematical Sciences, Memphis, TN 38152. *Fuzzy Korovkin Theory*. Preliminary report.

We extend to the Fuzzy setting the standard Korovkin theory, now regarding the convergence of Fuzzy positive linear operators to the Fuzzy Unit operator with rates using the fuzzy modulus of continuity. This is achieved by establishing Fuzzy Shisha-Mond type inequalities by using the established here Fuzzy Riesz Representation Theorem. The surprising phenomenon is that all the assumptions we need are the real deterministic ones plus one realization-naturalization condition imposed on the Fuzzy positive operators. Most of the Fuzzy Summation/Integration operators fit to our theory. We give such examples. (Received May 25, 2005)