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**George A Anastassiou\*** ([ganastss@memphis.edu](mailto:ganastss@memphis.edu)), Department of Mathematical Sciences,  
University of Memphis, Memphis, TN 38152. *Vectorial fractional approximation by linear operators.*

In this article we study quantitatively with rates the convergence of sequences of linear operators applied on Banach space valued functions. The results are pointwise and uniform estimates. To prove our main results we use an elegant boundedness property of our linear operators by their companion positive linear operators. Our inequalities are fractional involving the right and left vector Caputo type fractional derivatives, built in vector moduli of continuity. We treat very general classes of Banach space valued functions. We give applications to vectorial Bernstein operators. (Received August 14, 2017)