1145-41-148   **George A Anastassiou***, 3725 Norriswood st, Department of Mathematical Sciences, University of Memphis, Memphis, TN 38016. *Caputo and Canavati fractional Approximation by Choquet integrals.*

Here we consider the quantitative Caputo and Canavati fractional ap- proximation of positive sublinear operators to the unit operator. These are given a precise Choquet integral interpretation. Initially we start with the study of the fractional rate of the convergence of the well-known Bernstein-Kantorovich-Choquet and Bernstein-Durrweyer-Choquet poly- nomial Choquet-integral operators. Then we study the very general comonotonic positive sublinear operators based on the representation theorem of Schmeidler (1986). We finish with the approximation by the very general direct Choquet-integral form positive sublinear operators. All fractional approximations are given via inequalities involving the modulus of continuity of the approximated function fractional order derivative. (Received August 09, 2018)