

Book reviews

Vijay Gupta and Michael Th. Rassias, *Computation and Approximation*, Springer Cham 2021, Ser.: Springer Briefs in Mathematics
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In the book under review, the authors have treated exponential, semi exponential, integral and hybrid operators, some of which have never been studied in the past due to their complex behavior. The book consists of three chapters.

The first chapter presents a systematic list of exponential type operators. Some of these exponential type operators associated with $x(1+x)^2$, x^3 , $2x^{3/2}$ and $2x^2$ have not been studied in the past in such detail. Hence these operators may attract the interest of researchers who may wish to investigate their properties in greater depth. Furthermore, within this chapter a flavor for a possible extension of exponential-type operators to semi-exponential operators has also been indicated.

The second chapter is devoted to the treatment of several recent as well as new families of integral type operators. The authors provide here a link between original operators and their Kantorovich variants. Certain possibilities for further generalizations of such operators are also given in this chapter. Integral extensions of operators as such are not exponential type operators, but by studying such operators one may investigate many operators simultaneously, rather than studying them individually. Some original operators and their approximation properties in ordinary and simultaneous approximation are also discussed.

The third chapter deals with the investigation of the difference between two operators. Here general estimates for the difference between operators having the same but also different fundamental functions are provided. Moreover, general estimates for the difference of operators having higher-order derivatives are also discussed. In order to exemplify the theoretical results, the authors provide quantitative estimates for the differences between certain operators in ordinary and in simultaneous approximation.

Overall, the book under review is very well written and treats an active and interesting area of research. It constitutes an important contribution in the literature devoted to approximation theory and I feel it will be a very valuable source for researchers, undergraduate and postgraduate students interested to study positive linear operators. This book would also be very useful for seminar use.

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