

## MEAN VALUE THEOREMS ASSOCIATED TO THE DIFFERENCES OF OPIAL–TYPE INEQUALITIES AND THEIR FRACTIONAL VERSIONS

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*Abstract.* In this paper we analyze the error estimations of Opial-type inequalities for convex functions. The error bounds of these inequalities are studied by using mean value theorems for generalized kernels. Further applications of these results are obtained in fractional calculus by letting appropriate kernels.

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