

IMPROVED JENSEN–TYPE INEQUALITIES VIA QUADRATIC INTERPOLATION AND APPLICATIONS

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Abstract. In the paper (J. Math. Inequal. 11 (2017), no. 2, 301–322.), Choi, Krnić and Pečarić used the linear interpolation to improve Jensen-type inequalities for convex functions. Their method also provides a unified approach with simpler proofs for many recent results related to Young-type and Heinz-type inequalities. In this paper, we propose new refinements of Jensen-type inequalities established by Choi, Krnić and Pečarić via the quadratic interpolation of convex functions. We also give Young-type and Heinz-type inequalities for both scalars and operator cases as an application.

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