SOME BETTER BOUNDS IN CONVERSES OF THE JENSEN OPERATOR INEQUALITY

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Abstract. In this paper we study converses of a generalized Jensen’s inequality for a continuous field of self-adjoint operators, a unital field of positive linear mappings and real values continuous convex functions. We obtain some better bounds than the ones calculated in a series of papers in which these inequalities are studied. As an application, we provide a refined calculation of bounds in the case of power functions.


Keywords and phrases: convex function, Jensen’s operator inequality, Mond-Pečarić method, self-adjoint operators, positive linear mapping.

REFERENCES