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IMPROVEMENT OF JENSEN–STEFFENSEN’S INEQUALITY FOR SUPERQUADRATIC FUNCTIONS

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This paper is dedicated to Professor Lars-Erik Persson on the occasion of his 65th birthday.

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ABSTRACT. In this paper, improvements for superquadratic functions of Jensen–Steffensen’s and related inequalities are discussed. For superquadratic functions which are not convex we get inequalities analog to Jensen–Steffensen’s inequality for convex functions. For superquadratic functions which are convex (including many useful functions), we get improvements and extensions of Jensen–Steffensen’s inequality and related inequalities.

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