STEFFENSEN TYPE INEQUALITIES INVOLVING CONVEX FUNCTIONS

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Abstract. In this paper a new class of functions $\mathscr{M}_1^c[a,b]$ that extends the class of convex functions is introduced. Moreover, Steffensen type inequalities for the class of convex functions are proved as a consequence of more general inequalities for class $\mathscr{M}_1^c[a,b]$. Using the linear functionals constructed from the difference of the left and the right hand side of proved Steffensen type inequalities new families of exponentially convex functions and related results are obtained.

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