A new Boas-type inequality for monotone convex functions

(Talk)

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(joint work with J. Pečarić)

We state and prove a new Boas-type inequality for monotone convex functions in a context of topological spaces, σ-finite Borel measures and the Hardy-Littlewood average. We manage to construct this refinement by using the concept of the subdifferential and the assumption of monotonicity of a convex function. With respect to the support of a measure, we give some one-dimensional and multidimensional examples.

MSC2010: 26D10, 26D15.

Keywords: Boas inequality, convex function, Borel measure, Hardy-Littlewood average.

Section: 8.

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