

A NEW REFINEMENT OF JENSEN-TYPE INEQUALITY WITH RESPECT TO UNIFORMLY CONVEX FUNCTIONS WITH APPLICATIONS IN INFORMATION THEORY

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Abstract. In this paper, we establish a new refinement of Jensen-type inequality for uniformly convex functions. Furthermore, we apply those results in information theory and we obtain strong and more precise bounds for Shannon's entropy.

Mathematics subject classification (2020): 26A51, 26B25, 26D20, 26D15, 26D10.

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