A Hermite-Hadamard type inequality with applications to the estimation of moments of convex functions of random variables

Pașca Raluca Ioana

TECHNICAL UNIVERSITY CLUJ-NAPOCA

raluca.pasca24@yahoo.com

Gavrea Bogdan

TECHNICAL UNIVERSITY CLUJ-NAPOCA

bogdan.gavrea@math.utcluj.ro

In this paper we present a Hermite-Hadamard type inequality with applications to the estimation of moments for convex functions of several random variables. A particular case of the derived result can be applied to estimate the sum of moments for identically distributed random variables. We were motivated in our research by the applications of moment estimation in fields such as probability theory, mathematical statistics and statistical learning.