



Banach J. Math. Anal. 7 (2013), no. 1, 116–131

BANACH **J**OURNAL OF **M**ATHEMATICAL **A**NALYSIS

ISSN: 1735-8787 (electronic)

www.emis.de/journals/BJMA/

THE BEST LOWER BOUND FOR JENSEN'S INEQUALITY WITH THREE FIXED ORDERED VARIABLES

VASILE CIRTOAJE

Communicated by Z. Páles

ABSTRACT. In this paper we establish the best lower bound for the weighted Jensen's discrete inequality with ordered variables applied to a convex function f , in the case when the bound depends on f , weights and three fixed variables. Some applications for particular cases of interest are provided.

DEPARTMENT OF AUTOMATIC CONTROL AND COMPUTERS, UNIVERSITY OF PLOIESTI,
PLOIESTI, ROMANIA.

E-mail address: vcirtoaje@upg-ploiesti.ro

Date: Received: 21 April 2012; Revised: 11 July 2012; Accepted: 23 August 2012.

2010 Mathematics Subject Classification. Primary 26D07; Secondary 46A03, 47J20.

Key words and phrases. Jensen's inequality, ordered variables, best lower bound, three fixed variables.