World Academy of Science, Engineering and Technology
International Journal of Mathematical and Computational Sciences
Vol:10, No:05, 2016

Multidimensional Integral and Discrete Opial–Type Inequalities

Authors : Maja Andrić, Josip Pečarić

Abstract : Over the last five decades, an enormous amount of work has been done on Opial's integral inequality, dealing with new proofs, various generalizations, extensions and discrete analogs. The Opial inequality is recognized as a fundamental result in the analysis of qualitative properties of solution of differential equations. We use submultiplicative convex functions, appropriate representations of functions and inequalities involving means to obtain generalizations and extensions of certain known multidimensional integral and discrete Opial-type inequalities.

Keywords : Opial's inequality, Jensen's inequality, integral inequality, discrete inequality
Conference Title : ICMSEA 2016 : International Conference on Mathematical Sciences, Engineering and Applications
Conference Location : Rome, Italy
Conference Dates : May 02-03, 2016