Generalized fractional midpoint type inequalities for co-ordinated convex functions

Fatih HEZENCݹ, Hüseyin BUDAK², Hasan KARA¹, and Mehmet Zeki Sarikaya³

November 19, 2021

Abstract

In this research paper, we investigate generalized fractional integrals to obtain midpoint type inequalities for the co-ordinated convex functions. First of all, we establish an identity for twice partially differentiable mappings. By utilizing this equality, some midpoint type inequalities via generalized fractional integrals are proved. We also show that the main results reduce some midpoint inequalities given in earlier works for Riemann integrals and Riemann-Liouville fractional integrals. Finally, some new inequalities for \$k\$-Riemann-Liouville fractional integrals are presented as special cases of our results.

Hosted file

Fractional Hermite Hadamard's Type Inequality for 2 Variable.pdf available at https://authorea.com/users/446994/articles/546101-generalized-fractional-midpoint-type-inequalities-for-co-ordinated-convex-functions

Hosted file

Fractional Hermite Hadamard's Type Inequality for 2 Variable.tex available at https://authorea.com/users/446994/articles/546101-generalized-fractional-midpoint-type-inequalities-for-co-ordinated-convex-functions

¹Düzce Üniversitesi

²Duzce University

³Duzce Universitesi