

New results using fractional integrals

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Abstract

In this paper, we consider the Riemann-Liouville fractional integral to establish some new results of the Gruss integral inequality.

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1. Introduction

Let us consider the functional [3]:

$$\begin{aligned} T(f, g) := & \frac{1}{b-a} \int_a^b f(x)g(x)dx - \frac{1}{b-a} \left(\int_a^b f(x)dx \right) \\ & \times \left(\frac{1}{b-a} \int_a^b g(x)dx \right), \end{aligned} \quad (1)$$