

## New results using fractional integrals

Zoubir Dahmani \*

Louiza Tabharit †

Sabrina Taf ‡

*Laboratory of Pure and Applied Mathematics*

*Department of Mathematics*

*Faculty of SESNV*

*University of Mostaganem*

*Algeria*

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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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**Keywords and phrases :** *Integral inequalities, Riemann-Liouville fractional integral, Gruss inequality, Chebyshev inequality.*

### 1. Introduction

Let us consider the functional [3]:

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