

Refinements of the lower bounds of the Jensen functional

(Talk)

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(joint work with Sadia Khalid and Josip Pečarić)

The functional

$$J(\mathbf{x}, \mathbf{p}, f) = \frac{1}{P_n} \sum_{i=1}^n p_i f(x_i) - f\left(\frac{1}{P_n} \sum_{i=1}^n p_i x_i\right)$$

defined as the difference of the right-hand and the left-hand side of the Jensen inequality is studied. More precisely, its lower bounds are investigated, together with various sets of assumptions under which they hold. Refinements of some previously known results are given. Finally, some interesting special cases are considered.

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