A CLASS OF EXPONENTIAL INEQUALITIES

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Abstract. We prove that for reals $x_i$ with $\sum x_i \geq 0$, the estimate $\sum x_i e^{x_i} \geq C_N N \sum x_i^2$ holds, where $C_N = \max\{2, e(1 - 1/N)\}$. We also prove analogues for the $1$-norm and for Lebesgue-integrable functions.

Key words and phrases: Inequalities, exponential function, $p$-norm.

REFERENCES