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Inequalities Between the Sum of Squares and the Exponential of Sum of a Nonnegative Sequence

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Abstract: Using a standard argument, the following inequality between the sum of

squares and the exponential of sum of a nonnegative sequence is

established:

$$\frac{e^2}{4} \sum_{i=1}^n x_i^2 \le \exp\left(\sum_{i=1}^n x_i\right),\,$$

where $n\geq 2$, $x_i\geq 0$ for $1\leq i\leq n$, and the constant $\frac{e^2}{4}$ is the best ...

possible.

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