

A NOTE ON THE MULTIVARIATE GENERALIZATION OF A BASIC SIMPLE INEQUALITY

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Abstract. We introduce the multivariate analogue of the well known inequality $1 + x \leq e^x$, for an abstract non negative real number x . The result emerges from the study of the blow up time of certain solutions of the Cauchy problem for a particular ODE. It is also closely related to the notion of completely monotone functions and the theory of divided differences.

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