

DEPARTMENT OF MATHEMATICS  
FACULTY OF ELECTRICAL ENGINEERING

University of Beograd  
P. O. Box 816  
11.001 Beograd — Yugoslavia

BEOGRAD, .....5.5.1975

Dear Professor Rao,

In preparing the new edition of my book *Analytic Inequalities* (Springer, 1970) I became faced with the problem of how to select the material which has (particularly during the last few years) accumulated to quite an extent. On the one hand various generalizations of known inequalities are invented, and on the other conditions under which a known inequality holds are sharpened, which results in sharper inequalities. Again, in some papers the conditions are weakened in order that the inequality in question remain unaltered. In principle all that contributes to the advancement of the theory of inequalities.

I believe, however, that these are certain exaggerations. If a generalized inequality does not yield attractive and simple inequalities besides the already known ones, it seems that such generalization is not worth much. Indeed, who will look among the generalized inequalities for the one which is needed, and which appeared naturally in some problems? I even think that there must exist certain canonical (fundamental) inequalities, and that the inequalities which cannot be further simplified are the most essential ones. Nevertheless, one must be apodictic and insist upon what should be investigated.

I would like to add something concrete. The famous inequalities of Markoff and Čebyšev are examples of simple inequalities with a deep value. I think that it is generally recognized that those inequalities themselves are essential and not their numerous generalizations. Naturally, the same is true for inequalities such as Cauchy's, Holder's, Minkowski's, etc.

In fact I believe that the opinions of G.H. Hardy as given in his paper *Prolegomena to a chapter on inequalities* (J. London Math. Soc. 4, 61-78, and 5, 80 (1929)) are still quite true.

My views on this subject are not yet crystallized. I would therefore appreciate receiving your comments and suggestions regarding the problem I exposed. I would particularly be grateful if you could let me know of papers on inequalities which merit special attention, and also of papers which contain inequalities that can hardly be used owing to their overexaggerated artificial generality.

Your opinion on this particular problem (which is not confined only to inequalities) would be of great use to me.

Please send me the reprints and preprints of your papers relevant to inequalities.

Yours sincerely

*D.S. Mitrinović*  
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