A NOTE ON MY PAPER "ON SYMMETRIC MATRICES WHOSE EIGENVALUES SATISFY LINEAR INEQUALITIES"[1]

FRITZ JOHN

The first part of the theorem of the above paper states that if σ is a closed convex set in real $\lambda_1 \cdots \lambda_n$-space which is invariant under permutations of coordinates, and if $C(\sigma)$ denotes the set of real symmetric $n \times n$ matrices whose eigenvalues $\lambda_1, \cdots \lambda_n$ form the coordinates of points in σ, then $C(\sigma)$ is convex.

I am obliged to Professor R. T. Rockafellar for pointing out that this statement is essentially contained in a theorem of Chandler Davis.[2] The statement also follows from an earlier result of V. B. Lidskii,[3] which was not known to me at the time of publication.

COURANT INSTITUTE OF MATHEMATICAL SCIENCES, NEW YORK UNIVERSITY

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[1] Proc. Amer. Math. Soc. **17** (1966), 1140–1145.

[2] *All convex invariant functions of hermitian matrices*, Arch. Math. **8** (1957), 276–278.

[3] *The proper values of the sum and product of symmetric matrices*, Dokl. Akad. Nauk SSSR **75** (1950), 769–772; English Transl., National Bureau of Standards Rep. No. 2248, Washington, D.C., 1953.