

The most extensive previously published tables of such eigenvalues are those of Carslaw and Jaeger [1], which extend to 4D, and which the present author found inadequate for his purposes.

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51[F, Z, X].—*Revue Française de Traitement de l'Information*, Dunod, Éditeur, Paris, 1965, 158 pp., 22 cm. Price 12 f.

This little magazine has three articles in French, an algorithm section, and a bulletin describing computing activities in France. The three articles are:

- (1) "Sur la résolution des programmes à solutions entières," M. Courtillot,
- (2) "Algorithms d'analyse syntaxique pour langages 'Context-Free'," M. Basseur and J. Cohen and
- (3) "Point de vue sur la programmation," G. Lettelier and J. Weber.

The last article, which is of wider interest than the other two, discusses a new language, MICMAC, for the CDC 3600. Before giving details of this language, the authors write an interesting discussion of various programming language entities and notions. Among these are compatibility, static vs. dynamic languages, assembly languages and algorithmic languages and notions such as conditional assembly and macro instructions. MICMAC itself appears to be a powerful macro language compiler with pseudo instructions for declaring arrays of various types. The authors claim that MICMAC facilitates the reprogramming problem by clarifying programs so that they can be easily understood.

The second article is the first part of a two part paper on context free syntactic analysis for compilers. After a section on theoretical aspects of the problem, different types of analyses and reviews of existing work on syntactic analysis, the authors develop the subject of top down analysis in fine detail and end part one of the paper with an ALGOL algorithm for such an analysis. The bibliography (mostly in English) on syntactic analysis and theory of languages is extensive and interesting in itself.

The first article, which is of comparatively restricted interest, describes a method which has already been the object of several notes published inside the Shell Company and has also been presented at the International Symposium on Mathematical Programming in London, 1964. If f is a numerical concave function in R^n and g a concave function from R^n into R^m , the method presented permits solution of programs of the type:

$$\max [f(x) \mid g(x) \geq 0, x \in Z^n].$$

The method of all-integer-programming of R. Gomory is a special case of this method when f and g are linear with integer components.

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52[G].—MARVIN MARCUS & HENRYK MINC, *Introduction to Linear Algebra*, The Macmillan Company, New York, 1965, x + 261 pp., 25 cm. Price \$7.95.