

The volume concludes with two papers: Paper no. 14, by Dresher, Karlin, and Shapley, is concerned principally with zero-sum two-person games with the kernel $K(x, y) = \sum_{i,j} a_{ij} r_i(x) s_j(y)$, where the functions $r_i(x)$ and $s_j(y)$ are continuous, and x and y , the pure strategies of the two players, are points on the unit interval. Paper no. 15 by Bohnenblust, Karlin, and Shapley, discusses zero-sum two-person games with payoff function $M(x, y)$, which is such that, for every x in an arbitrary set A , $M(x, y)$ is a continuous convex function of y . The y -player is shown to have an optimal pure strategy (y is a point in a compact, convex n -dimensional region of a finite Euclidean space). The main result of the paper is that the x -player has an optimal mixed strategy which assigns probability one to a set which contains at most $(n+1)$ points x .

This volume has the merit of bringing together between two covers a large number of interesting papers on game theory which would otherwise be inconveniently scattered over many periodical issues. Such enterprises could profitably become a feature also in other branches of mathematics. The editors deserve much credit for a painstaking job, and for their lucid and stimulating introduction.

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Hydrodynamics, a study in logic, fact, and similitude. By Garrett Birkhoff. Princeton University Press, 1950. 14+186 pp. \$3.50.

The material of this book formed the contents of a series of lectures at the University of Cincinnati in 1947, and this perhaps accounts for the unusual and unconventional choice of material for a book with the title *Hydrodynamics*. There are five chapters in the book, most of which have only a loose connection with the others.

The reviewer found it difficult to understand for what class of readers the first chapter was written. For readers who are acquainted with hydrodynamics the majority of the cases cited as paradoxes belong either in the category of mistakes long since rectified, or in the category of discrepancies between theory and experiment the reasons for which are also well understood. On the other hand, the uninitiated would be very likely to get wrong ideas about some of the important and useful achievements in hydrodynamics from reading this chapter. In the case of air foil theory, for example, the author treats only the negative aspects of the theory. It has always seemed to the reviewer that the Kutta-Joukowski theory of airfoils is one of the most beautiful and striking accomplishments in applied mathematics. The fact that the introduction of a sharp trailing edge makes possible a physical argument, based on consideration of the effect of viscosity, that