choosing between one of two admissible hypotheses, and is essential to an adequate background of the subject. In addition, the reader is occasionally left without further guidance; thus, on page 15 it is stated that the measure of skewness a_3 "can be zero without the distribution's being symmetrical," and a similar caution is given in connection with a_4 as a measure of peakedness. However, the reader is given no hints on the nature of these exceptions, to enable him to judge whether they are "pathological" or not, nor is he told where such exceptions are discussed in the literature. Explicit citation in the text of especially pertinent references given at the end of the chapter would be very helpful in numerous instances, as would also the referencing of such material in the index under author and subject.

This reviewer obtained the impression, as he read along, that he was being "talked down to." Instead of a feeling of being guided through new vistas by an enthusiastic statistician engaged in a bit of proselyting, or the feeling of being "shown the way" to a new "religion" by a penetrating thinker with wide experience, he felt that the narrator was condescending to tell him a few of the things regarded as commonplace by those "in the know."

As a textbook for a first course in mathematical statistics, its mathematical level is likely to render it unsatisfying to students of mathematics, and its atmosphere of noncontact with practical applications may limit its effectiveness among practical workers who seek on-the-job guidance. There is, however, at present no other book of comparable size that provides such a broad introduction to statistical inference.

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Theory of servomechanisms. Hubert M. James, Nathaniel B. Nichols, and Ralph S. Phillips. (Eds.) (Massachusetts Institute of Technology Radiation Laboratory Series.) New York-Toronto-London: McGraw-Hill, 1947. Pp. xiv + 375. (Illustrated.) $5.00.

In the first four chapters of this volume one finds a short history of servo design technique, some performance specifications, and a brief introduction to the mathematics used in the analysis of servo systems. The servo is likened to a linear filter and is characterized by either of the following: (a) its weighting function, (b) its frequency response, (c) its transfer function. Servo elements and networks are described, and Nyquist Criterion of stability is introduced. The fifth chapter deals with filters subjected to pulsed data, their transfer functions, and their stability. Pulsed servos and their characteristics are discussed in this chapter.

The last three chapters are concerned with the mathematics of statistics and statistical methods applied to control. A new design technique based on the minimum root mean square error in the presence of extraneous noises and inputs is described and applied.

There is correlation between the various chapters, and the sequence of topics discussed is well chosen. Illustrative examples and diagrams are presented throughout. The 8 chapters of this book, written by 10 members of the Radiation Laboratory, constitute a valuable contribution to the science of servomechanisms.

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Methods of algebraic geometry. (Vol. I.) W. V. D. Hodge and D. Pedoe. Cambridge, Engl.: at the Univ. Press; New York: Macmillan, 1947. Pp. viii + 440. $6.50.

The volume before us, which, it is announced, will be followed shortly by a second volume devoted to the theory of algebraic varieties and to the study of certain loci which arise in many geometric problems, is divided into two books. Book I is devoted to Algebraic Preliminaries, and Book II, to Projective Space. As the title implies, no attempt has been made to build up a body of geometric theorems. Though the projective group is necessarily fundamental, no discussion of its invariants is given except as these may appear incidentally in reductions to canonical forms. The polar operator is mentioned, but its invariance is not stressed. Yet the necessarily restricted choice of material is excellent, and the volume is a very welcome addition to the literature in this field.

In Book I the four chapters deal, respectively, with integral domains, rings, fields, and factorization; with linear algebra, matrices, and determinants; with algebraic dependence, field extensions, and their effect on factorization; and with algebraic equations, including Hilbert's "basis" and "zero" theorems and the theory of resultants. In the second half of this book, from the point at which determinants are introduced, the basic field is assumed to be commutative. Fields with characteristic are considered only incidentally, and algebraically closed fields are employed only as circumstances demand.

In Book II, Chapters V and VI, respectively, give an algebraic and a synthetic definition of a "projective space." In these two chapters a noncommutative field is basic and commutativity is shown to be a consequence of the validity of the Pappus theorem. Essentially, the objective here is to show that the projective spaces obtained by either approach are identical. The remaining three chapters, based entirely on commutative fields, deal with Grassmann coordinates, with collineations, and with correlations including polarities and null systems. The customary reduction of pencils of such forms to canonical forms is exhaustively treated.

Much of the presentation is preliminary to Chapter VI, in which the projective space is obtained axiomatically. This particular chapter, almost one-fifth of the entire volume, seems somewhat foreign to the general purpose. Even the authors appear to share this feeling to some extent, for, in a footnote to the chapter heading, we read that "this chapter is almost completely independent of the rest of the book, and may be omitted at a first reading." Much greater unity might have been attained by omitting this chapter and using only commutative ground fields. Noncommutativity might well have been restricted to operations, such as permutations and matrix multipli-