theorems including some in projective geometry.

Chapter II (pp. 71–110) is similar in character to Chapter I except that it is concerned with three-space. Chapter III (pp. 111–155), together with Chapters I, II, and VI, gives a reasonably complete account of projective geometry. Chapter V, Differentiation and Motion (pp. 177–196) is somewhat similar to the development by classical vector analysis. It treats among other things velocity, acceleration, curvature, central motion, and displacements in space. In Chapter VII, The General Theory (pp. 217–249), the central ideas are linear dependence and the various products of extensives. Determinants enter the picture by way of the fact that if $b_1, \cdots, b_r$ are each linearly related to $a_1, \cdots, a_r$, then $[b_1 \cdots b_r] = D[a_1 \cdots a_r]$, D being the determinant of the coefficients in the linear relationship. Chapter VIII (pp. 250–264) gives the application to linear equations and determinants. With regard to linear equations the modus operandi is to multiply each equation of the set $a_c^r x^c = b^r$ by an extensive e_r and add, thus $e_r a_c^r x^c = e_r b^r$. This reduces N equations in N unknowns to a single equation in extensives. The familiar theorems on the solvability of equations follow with marked simplicity. The treatment of determinants like the book as a whole is characterized by the wide scope of the material which is intelligibly presented in a relatively small space. Chapter IX (pp. 265–294) treats transformations, square matrices, and central quadrics—mostly well known material in slightly different dress. The remaining chapters are devoted to: the screw and linear complex, the general theory of inner products, circles (two chapters), the general theory of matrices, quadric spreads, and algebraic products.

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Introduction to the theory of relativity. By Peter Gabriel Bergmann with a foreword by Albert Einstein. New York, Prentice-Hall, 1942. 287 pp. $4.50.

Many excellent books have been written on the Theory of Relativity. Although some of them appeared more than twenty years ago they are still read and studied, far from being regarded as antiquated. The books of Weyl, Pauli, Eddington are justly looked upon as classics in this subject. To say that Bergmann's book is in the same class as the books just mentioned means great, but deserved, praise.

Bergmann's book has its own character, and differs from the other books on Relativity Theory which have appeared up to now. First, it is more modern. The application of Relativity Theory to the Theory