integrodifferential and difference equations it solves. It has a wealth of illustrative examples, done in the text, and many problems for the student at the ends of the chapters (no answers). There is a very extensive table of Laplace transforms, as useful as a table of integrals in a calculus course. In chapter 1 and in appendix B a valuable comparison of the Laplace method with other possible techniques is given. Historical notes on the mathematical theory appear in appendix C. Finally there is one of the most extensive bibliographies on the subject yet to appear.

D. V. WIDDER

A treatise on projective differential geometry. By Ernest Preston Lane. Chicago, University of Chicago Press, 1942. 9+466 pp. $6.00.

Since the appearance of the author's earlier volume, *Projective differential geometry of curves and surfaces* (University of Chicago Press, Chicago, 1932), significant contributions to the field of projective differential geometry have been made by geometers in various parts of the world. In the preface the author does not claim that the present treatise is exhaustive, but states that it represents the fruit of ten years of study and investigation and gives an account of the author's experience with those portions of the subject which interested him most. It is with respect to those portions of the subject, then, that the reviewer interprets the author's statement, appearing earlier in the paragraph, that "the present volume integrates the new material with the old and gives a connected exposition of the theory to date." The treatise reports results of studies made by many workers in the field, and expounds a wide range of topics. It is also notable, however, that some of the newer topics that have attracted rather general interest have not been mentioned. Parts of the proofs, involving calculations that are difficult for the uninitiated, are so frequently left to the care of the reader that only the more advanced students of the subject can use the volume successfully as a textbook. The treatise is properly designed to serve as a reference book for the research worker in the field. Geometric concepts and results are consistently described in a lucid graphic manner.

It is satisfying to observe that the present volume devotes considerably more attention to the methods of Wilczynski on the study of curves by means of linear differential equations than does the earlier volume. It is disappointing, however, to find no mention made of Stouffer's simplifications of Wilczynski's methods of determining (i) canonical power series expansions for the local equations of plane and space curves, and (ii) the geometric characteriza-