down to the subject at the level of first principles by explaining the concepts of function, limit, convergence and so on. Interleaved with this discussion are flashbacks to the work of Fourier's predecessors, in particular that of Bernoulli and D'Alembert. We are then taken through an elegant account of (amongst other topics) the Gibbs phenomenon, Fejer means, a comparison of Fourier and Taylor series and the application of Fourier functions to eigenvalue problems.

Chapter two of about 30 pages describes the use of Fourier series in approximation problems such as curve fitting, global integration, smoothing of ' noisy ' data and methods of improving convergence.

The third and final chapter of 90 pages mainly discusses the Fourier Integral, the method of residues, Fourier and Laplace transforms including convolution theorems. This is perhaps more difficult to follow and the reader ought to be fairly well acquainted with such topics as the Cauchy Integral theorem, convergence of infinite integrals and so on.

The author's style is positive and refreshing and makes for pleasant, though not always easy, reading. The book is truly a discourse and the device of question and answer is used to present much of the material. It might be mentioned that although the questions are divinely inspired (that is to say not the sort that most students are likely to ask) your reviewer did not find this irksome. Summing up, this book is likely to have wide appeal and deserves to be read by all who really want to enrich their knowledge of the subject.

RALPH JORDINSON

COLLINGWOOD, E. F. and LOHWATER, A. J., *The Theory of Cluster Sets* (Cambridge Tracts in Mathematics and Mathematical Physics No. 56, 1966), xi+211 pp., 50s.

If a complex valued function f is defined in a domain D of the complex plane, then relative to the functional values of f and a specified approach to the boundary of D various sets of complex numbers can be defined. The theory of cluster sets, in the main, deals with the relationships among such sets and the function theoretic properties of f. The present book is intended as an introduction to this theory and complements " Cluster Sets " by K. Noshiro in the " Ergebnisse " series.

Most analysts will be acquainted with a number of results which are fundamental in the theory of cluster sets, but in many cases the form in which these are known will not contain any direct reference to cluster sets. Such results are associated with Weierstrass, Picard, Fatou, Iversen, Gross, etc. Insofar as the theory of cluster sets relates to immediate developments of such classical results I feel it will be of interest to every complex analyst. On the other hand perhaps many will feel a little lukewarm towards some of the more specialised refinements of the theory.

The theory of cluster sets is too complicated for me to attempt any kind of summary of the contents of the book under review. However, I should like to emphasize that it contains a great deal of material of the highest general interest to the complex analyst as well as material on the more specialised aspects of the theory of cluster sets.

Unfortunately the book does have a number of defects. The attitude to more or less ancillary results is a bit illogical. It is not clear on what basis it was decided which of these results were to be proved and which of them were to be quoted. The presentation in a number of places will cause a lot of difficulty for many readers. Finally the book contains quite a large number of slips and errors. The above features together with the natural complexity of many arguments within the theory of cluster sets make the book rather difficult to read.

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