BOOK REVIEWS

The number of minor errors in the book is annoyingly large. Sometimes the proofs have the appearance of having been hastily written and then not carefully checked. Some sections are sufficiently sloppy to cause confusion. In spite of these problems, there was no lack of volunteers to lecture from the book at a year long seminar at Michigan State University. We covered almost the entire book and everyone was enthusiastic about the choice of topics that Fisher made. For anyone interested in complex analysis, there is a lot of fun (and a bit of frustration) to be found in this book.

References

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6. J. L. Walsh, The approximation of harmonic functions by harmonic polynomials and by harmonic rational functions, Bull. Amer. Math. Soc. 35 (1929), 499-544.

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Integral representations and residues in multidimensional complex analysis, by L. A. Aizenberg and A. P. Yuzhakov, Translations of Mathematical Monographs, Vol. 58, American Mathematical Society, 1983, x + 283 pp., \$68.00. ISBN 0-8218-4511-X

One of the most beautiful and, at the same time, useful portions of mathematics is the classical theory of the Cauchy integral: the Cauchy integral theorem and the residue theorem. This theory has found application in remarkably diverse directions, from number theory to hydrodynamics. In addition to such extramural applications, the Cauchy theory has, of course, played an essential role in the development of the magnificent edifice that is the modern theory of functions of a complex variable.

The development of the theory of functions of several complex variables, beginning with Riemann and Weierstrass, has followed rather different lines. In this development the Cauchy integral formula of classical function theory has played an important role, for example, in the usual proof of the Weierstrass preparation theorem. In addition, there is an immediate extension of the Cauchy integral formula, valid for functions holomorphic on polydiscs, and it has important uses, which, in the main, parallel the simpler uses of the one-dimensional theory. However, integral representation formulas of an essentially multidimensional nature have not played a major role in the development of the theory of functions of several complex variables. Thus, the two standard English language texts on several complex variables, Gunning and Rossi's Analytic functions of several complex variables [6], and Hörmander's An