BOOK REVIEWS

The chaper headings, which are self-explanatory, are: (1) Homotopy and the fundamental group; (2) Covering spaces and fibrations; (3) Polyhedra; (4) Homology; (5) Products; (6) General cohomology theory and duality; (7) Homotopy theory; (8) Obstruction theory; and (9) Spectral sequences and homotopy groups of spheres.

As a reviewer, I surely do not wish to suggest that editors be allowed to change or reject invited reviews. However, the review of this book which appeared in Mathematical Reviews was so unfair that the editors of that journal should have published a second review. A reform which might help would be for editors not to invite reviews from persons who have written a book which competes or pretends to compete with the book under review.

F. P. Peterson

Value distribution theory by Leo Sario and Kiyoshi Noshiro. Van Nostrand, Princeton, N. J., 1966. xi+256 pp. \$7.50.

This book is directed to the study of regular mappings from a Riemann surface R into a Riemann surface S, particularly to the distribution of values of such mappings. Naturally, except for the simplest cases, R will be open, S may be closed or open. A priori, distribution of values might be construed in many ways but in analogy to the classical Nevanlinna pattern, where R is the plane, S the Riemann sphere, it has here the following context: R is to be exhausted by a family of finite Riemann surfaces with smooth boundaries, on S there is assigned a function to measure proximity of pairs of points and a related measure of area; the primary result is that for each value on S the sum of terms representing the frequency with which this value is taken in an exhausting surface and the proximity of the values on its boundary to this value is equal to the integrated value of areas covered by the Riemann covering image over S. This is followed by a main theorem which represents an analogue of Nevanlinna's Second Fundamental Theorem.

The first two chapters are devoted to the explicit implementation of this program in the respective cases where S is closed or open. The exhaustion of R is obtained by starting with a parametric disc R_0 with boundary β_0 , taking a finite Riemann subsurface Ω of R with smooth boundary $\beta_0 \cup \beta_0$ not containing R_0 and taking the harmonic function u on Ω with boundary values 0 on β_0 , $k(\Omega)$ on β_0 such that $\int_{\beta_0} du^* = 1$. Further β_h denotes the level line u = h, Ω_h the subset of Ω on which $0 < u < h(\leq k(\Omega))$ and $R_h = \overline{R}_0 \cup \Omega_h$. The construction of the proximity function on S begins with the choice of points ζ_0 , ζ_1 there together with corresponding fixed local uniformizing parameters.

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