

geometry) although a few results, which give sufficient conditions for  $M$  to be conformally flat, require instead that  $\bar{M}$  have vanishing Bochner tensor. The well-organized proofs and calculations are cleanly presented in a straightforward easy-to-follow manner and, despite the many indices, are nearly always free of errors, even typographical. (Two exceptions: The proof of Theorem 4.1 of Chapter III—and its analogues in later chapters—does not make it clear whether the distribution  $L$  lives in  $\bar{M}^m(4)$  or in the frame bundle of that manifold; in Chapter IV, Example 8.1 appears to contradict Proposition 10.2, but including the hypothesis  $c \geq 1$  fixes it up.)

The organization of the book is straightforward and enhances its role as a reference work. Chapters I and II constitute a rapid yet lucid review of Riemannian geometry and the theory of submanifolds. Most of the results are in Chapters III (AIS's of  $K$ -manifolds), IV (AIS's of  $S$ -manifolds tangent to  $\xi$ ) and V (AIS's of  $S$ -manifolds normal to  $\xi$ ). Within these chapters the results are organized into sections so that usually theorems having similar hypotheses are grouped together. Chapter VI (AIS's and Riemannian fibre bundles) is somewhat different in spirit. In it the authors relate the properties of submanifolds of an  $S$ -manifold  $\bar{M}$  to those of submanifolds of a  $K$ -manifold  $\bar{N}$  in the situation in which there is a Riemannian fibration  $\pi: \bar{M} \rightarrow \bar{N}$  whose fibres are the integral curves of the structure field  $\xi$ . The most important example is the standard  $S^1$ -fibration  $\pi: S^{2m+1} \rightarrow CP^m$ .

**General comments.** The major strengths of the book under review are its clarity, its organization and its comprehensiveness. Researchers in this topic will find it most useful and should appreciate the considerable care which the authors (and also the publisher) used in its preparation.

A weakness of the book, in my opinion, is that it does not give the reader sufficient information about the general behavior of anti-invariant submanifolds. Almost all the results refer only to the AIS's in some highly restricted class of submanifolds (e.g., minimal submanifolds, submanifolds with parallel second fundamental form, etc.); very few results apply to a "generic" class of AIS's.

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*Degree theory*, by N. G. Lloyd, Cambridge Tracts in Math., vol. 73, Cambridge Univ. Press, Cambridge, Great Britain, 1978, x + 172 pp., \$21.00.

The classical topological degree is a useful tool for investigating the equation  $F(x) = p$ , where  $F: \bar{D} \rightarrow \mathbf{R}^n$  is a continuous map of the closure of a bounded open subset  $D$  of  $\mathbf{R}^n$  and  $p \in \mathbf{R}^n$ . If  $F(x) \neq p$  for  $x \in \partial D$  one can associate an integer  $\text{deg}(F, D, p)$  to the triple  $(F, D, p)$ ; this integer, called the topological degree of  $F$  on  $D$  with respect to  $p$ , has certain properties—usually referred to as the additivity, homotopy and normalization properties—which axiomatically determine the degree and sometimes make its computation possible.