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2-Knots and their groups, by Jonathan Hillman. Austral. Math. Soc. Lect. Ser., vol. 5, Cambridge University Press, New York, 1989, 164 pp., $19.95. ISBN 0-521-37812-5

Whereas the algebraic characterization of n-knot groups (fundamental group of the complement $S^{n+2} \backslash K^n$ of an n-knot K^n) is easy for $n \geq 3$, and apparently hopeless for $n = 1$, the problem of characterizing algebraically the 2-knot groups is very challenging: It is certainly a difficult one, but with some optimism, may perhaps be viewed as not totally hopeless. This book gives, in rather condensed form, an essentially complete survey of the subject and a very good account of the status of the problem.

After an introductory Chapter 1 and a slick exposition of the classic background (i.e., of the results, which are more than ten years old) in Chapter 2, the book starts for good on page 36 with five chapters on the recent rather prolific developments of the algebraic study of 2-knot groups in the last ten years. Many of these results are in fact due to the author.

Thus, the book is intended for the working research topologist who wants to acquire a comprehensive idea of the status of the