

they are not); examples, originally due to Grima, of distinct fibered links with the same Alexander polynomial, and examples of nontrivial links with trivial fibering of the complement. Most of these are easily computed using the splice diagram.

One general pattern in the study of topological properties of algebraic varieties is that some property is first discovered using the algebraic structure, and later reproved in a geometric or topological setting. Eisenbud and Neumann do this as well: They show geometrically that the complement of algebraic link fibers, the eigenvalues of the monodromy on homology are roots of unity, and that its largest Jordan block associated to the eigenvalue one is of size one. (The first two facts already had geometric proofs; the last one had been proved analytically by Steenbrink and later Navarro, using mixed Hodge theory. They also obtained a related result in higher dimensions.)

My only major complaint with the book is that there is no index. An index should be easy to make in our present computer age (and was easy even in the past, when a student could be hired to do it). The lack of an index reduces the value of a book as a reference. I suspect that an index would help to organize such matters as definitions as well. For example, the important term 'solvable link' appears to be defined in the statement of Theorem 9.2, and the central term 'graph link' appears not to be formally defined at all; it is first mentioned in the body of the text in §8, without definition, but fortunately had already been defined—in passing—in the introduction. The many favorable qualities of this book more than make up for these defects, though. It is an excellent book for students to read, especially because of its collection of scattered and occasionally unknown results, for example the algorithm for passing from the Puiseux expansion to the polynomial. And lastly, there is a lengthy and superb introduction.

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*Methods of representation theory with applications to finite groups and orders*, vol. II, by Charles W. Curtis and Irving Reiner. John Wiley and Sons, New York, Chichester, Brisbane, Toronto, Singapore, 1987, xv+951 pp., \$95.00. ISBN 0-471-88871-0

“... while, in the present state of our knowledge, many results in the pure theory are arrived at most readily by dealing with the properties of substitution groups, it would be difficult to find a result that could be most directly obtained by the consideration of groups of linear transformations.”