B-splines, and one on the distance problem for pairs of parametric curves. These seven papers concern curves in spaces of arbitrary dimension, and constitute the first part of the book. The second part is devoted to surfaces not of tensor-product type. Here there are three papers, of which the first is a survey of scattered data fitting by triangular elements. The second concerns free-form surfaces generated as solutions of partial differential equations. The third addresses surface modeling by box splines. The book as a whole provides authoritative and timely information about the perpetual problems of constructing curves and surfaces for modeling, data-fitting, and interpolation. It should be valuable to theoreticians and to practitioners.

E. W. C.

41[68–01, 68Q40].—PATRICE NAUDIN & CLAUDE QUITTÉ, *Algorithmique Algébrique (avec exercices corrigés)*, Logique Mathématiques Informatique, Vol. 1, Masson, Paris, 1992, xvi + 469 pp., 24 cm. Price: Softcover F 280.

The present text is not an algebra textbook. Rather, the intended audience consists of students in mathematics or computer science that have a reasonable knowledge of linear algebra and of the theory of groups, rings, fields, etc. The authors merely discuss the computational aspects of these subjects.

The book contains five chapters. In the first chapter the computer language ADA is discussed. It is used to present explicit algorithms in the next chapters. In Chapters 2, 3, and 4, the authors deal with the arithmetic of polynomial rings, of matrices and of the ring Z/nZ, respectively. In the final chapter, the fast Fourier transform is discussed.

The book is rather "light". The authors only explain the most elementary algorithms. They do, for example, not discuss the real problems that one encounters when doing computations with matrices with integral coefficients. They do not mention any of the more recent, powerful, algorithms for primality testing or factorization of integers or polynomials. Even Berlekamp's accessible algorithm to factor polynomials over finite fields is not explained.

Given the prerequisites, it is actually quite impressive to see how little the authors succeed in doing on the 469 densely printed pages at their disposal.

R. S.

42[11A25, 11–04].—DAVID MOEWS & PAUL C. MOEWS, *A List of Amicable Pairs Below* 10^{11}, University of California, Berkeley, and University of Connecticut, 53 pages deposited in the UMT file.

This table consists of a list of all 3340 amicable pairs with lower member below 10^{11}, ordered by their lower member. The format follows [1]. For each pair, a serial number is given, as well as the type (as in [1]) of the amicable pair, the members of the pair, and their factorizations. An attempt has been made to indicate pairs that have already appeared in various previous tables of amicable pairs.

AUTHORS' SUMMARY

1. H. J. J. te Riele, *Computation of all the amicable pairs below* 10^{10}, Math. Comp. **47** (1986), 361–368.