

Vasconcelos, Wolmer V.

[Eisenbud, David; Grayson, Daniel R.; Herzog, Jürgen; Stillman, Michael]

Computational methods of commutative algebra and algebraic geometry. With chapters by David Eisenbud, Daniel R. Grayson, Jürgen Herzog and Michael Stillman. 3rd printing.

(English) [Zbl 1095.13034](#)

Algorithms and Computation in Mathematics 2. Berlin: Springer (ISBN 3-540-21311-2/pbk). xiii, 408 p. (2004).

It is the third printing of the book. This shows that the book is very interesting and useful. There is an excellent review of the first edition (1998; [Zbl 0896.13021](#)) by Peter Schenzel. There are no essential changes in the present book. Several typos and errors pointed out to the author are corrected. Publication data in the bibliography are updated and new references are added.

Reviewer: [Gerhard Pfister \(Kaiserslautern\)](#)

#### MSC:

[13P10](#) Gröbner bases; other bases for ideals and modules (e.g., Janet and border bases)

[14Qxx](#) Computational aspects in algebraic geometry

[13Pxx](#) Computational aspects and applications of commutative rings

Cited in **3** Documents

#### Keywords:

computer algebra; Gröbner bases; primary decomposition; syzygies; integral closure