

Revised September 2023

DAVID EISENBUD
eisenbud.io.github.com
SELECTED PUBLICATIONS

10 Representative Publications

1. What Makes a Complex Exact? (with D. A. Buchsbaum), J. of Alg., 25 (1973) 259–268.
2. Every Algebraic Set in n -Space is the Intersection of n Hypersurfaces (with E. G. Evans), Invent. Math. 19 (1973) 107–112.
3. An algebraic formula for the degree of a C^∞ map germ (with H. Levine), Annals of Math. 106 (1977) 19–44.
4. Homological Algebra over a Complete Intersection, Trans. Am. Math. Soc. 260 (1980), 35–63.
5. Gorenstein ideals of height 3 (with D.A. Buchsbaum), In Seminar D. Eisenbud/B. Singh/W. Vogel, Vol. 2, volume 48 or Teubner-Texte zur Math., (30–48. Teubner, Leipzig, (1982).
5. **Three dimensional Link Theory and Invariants of Plane Curve Singularities**, (with W. Neumann), Annals of Math. Studies 110, Princeton University Press Princeton NJ (1985).
6. The Kodaira dimension of the moduli space of curves of genus ≥ 23 (with J. Harris), Invent. Math. 90 (1987) 359–387.
7. **Commutative Algebra With A View Toward Algebraic Geometry**, Graduate Text 150, Springer-Verlag, 1995.
8. Exterior algebra methods for the minimal resolution conjecture (with Sorin Popescu, Frank-Olaf Schreyer, and Charles Walter). Duke Math. J. 112 (2002), no. 2, 379–395.
9. Resultants and Chow forms via exterior syzygies. (with F.-O. Schreyer and J. Weyman). J. Amer. Math. Soc. **16** (2003), 537–579.
10. Betti Numbers of Graded Modules and Cohomology of Vector Bundles (with Frank-Olaf Schreyer). Jour. Amer. Math. Soc., (2009), no. 3, 859–888.

Publications, Last Three Years

1. Quadratic complete intersections. (with I. Peeva and F.-O. Schreyer) *J. Algebra* 571 (2021), 15–31.
2. Layered resolutions of Cohen-Macaulay modules (with I. Peeva). *J. Eur. Math. Soc. (JEMS)* 23 (2021), no. 3, 845–867.
3. Tate resolutions and MCM approximations. *Commutative algebra 150 years with Roger and Sylvia Wiegand*, 35–47, *Contemp. Math.*, 773,
4. Classical Algebraic Geometry (O. Debarre, G. Farkas and R. Vakil; Oberwolfach Rep. 18 (2021), no. 2, 1519–1577.
5. Remembering David Buchsbaum (with J. Weyman) *Notices Amer. Math. Soc.* 69 (2022), no. 1, 76–87.
6. Mathematics at the airport? Why sure! (with N. Mullen and C. Stoll) *Notices Amer. Math. Soc.* 69 (2022), no. 4, 612–615.
7. Linearity of free resolutions of monomial ideals (with H. Dao) *Res. Math. Sci.* 9 (2022), no. 2, Paper No. 35, 15 pp.
7. Residual Intersections of $2 \times n$ determinantal ideals (with Bernd Ulrich) submitted to the volume in honor of Shiing-Shen Chern, accepted for the *Journal Algebraic Geometry and Physics*, Tsinghua, China.
8. Burch Index, Summands of Syzygies and Linearity in Resolutions (with H. Dao) submitted to *Bulletin of the Iranian Mathematical Society*.
9. F.S. Macaulay: From Plane Curves to Gorenstein Rings (with Jeremy Gray) *Bull. Am. Math. Soc.*.
10. Residual Intersections and Linear Powers (with C. Huneke, B. Ulrich) To appear, *Trans. Am. Math. Soc.*
11. **Practical Curves** (Graduate Textbook, approximately 400 pages) To appear, American Mathematical Society.