

Algebraic Geometry

Garrity, T., 2004, “Recommended resources in algebraic and differential geometry”, chapter 8, p. 165-190, in Kristine Fowler, ed., 2004, Using the mathematics literature, Marcel Dekker. —This chapter is an annotated bibliography.

Thomas Garrity’s list of introductory undergraduate texts

Bix, R., 1998, Conics and cubics: a concrete introduction to algebraic curves, Springer

Cox, D., Little, J. & O’Shea, D., 1996, Ideals, varieties, and algorithms: an introduction to computational algebraic geometry and commutative algebra, 2nd ed., Springer

Gibson, C. G., 1998, Elementary geometry of algebraic curves: an undergraduate introduction, Cambridge University Press

Reid, M., 1988, Undergraduate algebraic geometry, Cambridge University Press

Smith, K. et al., 2000, An invitation to algebraic geometry, Springer

Thomas Garrity’s list of introductory graduate texts

Fischer, G., 2001, Plane algebraic curves, AMS

Fulton, W., 1989, Algebraic curves: an introduction to algebraic geometry, Addison-Wesley

Griffiths, P. & Harris, J., 1978, Principles of algebraic geometry, Wiley

Harris, J., 1995, Algebraic geometry: a first course, Springer

Hartshorne, R., 1977, Algebraic geometry, Springer

Kirwan, F., 1992, Complex algebraic curves, Cambridge University Press

Miranda, R., 1995, Algebraic curves and Riemann surfaces, AMS

Mumford, D., 1975, Curves and their Jacobians, University of Michigan Press

Mumford, D., 1995, Algebraic geometry I: complex projective varieties, Springer

Mumford, D., 1999, The red book of varieties and schemes: includes the Michigan Lectures (1974) on curves and their Jacobians, 2nd ed., Springer

Shafarevich, I. R., 1994, Basic algebraic geometry, 2nd ed., Springer

Ueno, K., 1999, Algebraic geometry 1: From algebraic varieties to schemes, AMS

Ueno, K., 1999, Algebraic geometry 2: Sheaves and cohomology, AMS

Ueno, K., 2003, Algebraic geometry 3: Further study of schemes, AMS

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Organizer recommendations

Workshop 1: Connections for women: Algebraic geometry and related fields, 1/22-24/2009

- Billey, S. & Lakshmibai, V., 2000, Singular loci of Schubert varieties, Birkhäuser
- Case, B. A. & Leggett, A. M., eds., 2005, Complexities: women in mathematics, Princeton University Press
- Hosten, S., Lee, J. & Thomas, R. R., eds., 2004, Trends in optimization: AMS Short Course, Jan 5-6, 2004, Phoenix, AZ, AMS
- Kenschaft, P. C., 2005, Change is possible: stories of women and minorities in mathematics, AMS
- Kollár, J., Smith, K. E. & Corti, A., 2004, Rational and nearly rational varieties, Cambridge University Press
- Murray, M. A. M., 2000, Women becoming mathematicians: creating a professional identity, MIT Press
- Smith, K. et al., 2000, An invitation to algebraic geometry, Springer
- Thomas, R. R., 2006, Lectures in geometric combinatorics, AMS

Workshop 2: Classical algebraic geometry today, 1/26-30/2009

- Auroux, D. et al., 2008, Symplectic 4-manifolds and algebraic surfaces, Springer
- Ebeling, W., 2007, Functions of several complex variables and their singularities, AMS
- Ginzburg, V., ed., 2006, Algebraic geometry and number theory: in honor of Vladimir Drinfeld's 50th birthday, Birkhäuser
- Greuel, G.-M., Lossen, C. & Shustin, E., 2007, Introduction to singularities and deformations, Springer
- Hasset, B., 2007, Introduction to algebraic geometry, Cambridge University Press
- Hibi, T., ed., 2007, Affine algebraic geometry, Osaka University Press
- Huybrechts, D., 2006, Fourier–Mukai transforms in algebraic geometry, Clarendon
- Neeman, A., 2007, Algebraic and analytic geometry, Cambridge University Press
- Peters, C. A. M. & Steenbrink, J. H. M., 2008, Mixed Hodge structures, Springer
- Tommasi, O., 2005, Geometry of discriminants and cohomology of moduli spaces, Radboud Universiteit

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More books by workshop and program organizers and speakers

- Debarre, O., 2005, Complex tori and Abelian varieties, AMS
- Eisenbud, D. & Neumann, W., 1985, Three-dimensional link theory and invariants of plane curve singularities, Princeton University Press
- Eisenbud, D. & Robbiano, L., eds., 1993, Computational algebraic geometry and commutative algebra: Cortona, 1991, Cambridge University Press
- Eisenbud, D., ed., 1999, Commutative algebra, algebraic geometry, and computational methods, Springer
- Eisenbud, D. & Harris, J., 1999, The geometry of schemes, Springer
- Eisenbud, D., 2004, Commutative algebra with a view toward algebraic geometry, Springer
- Eisenbud, D., 2005, The geometry of syzygies: a second course in commutative algebra and algebraic geometry, Springer
- Fulton, W., 1984, Intersection theory, Springer
- Fulton, W., 1984, Introduction to intersection theory in algebraic geometry, AMS
- Fulton, W. & Harris, J., 1991, Representation theory: a first course, Springer
- Fulton, W., 1993, Introduction to toric varieties, Princeton University Press
- Fulton, W., 1997, Algebraic topology: a first course, Springer
- Harris, J. & Morrison, I., 1998, Moduli of curves, Springer
- Kollár, J. with the collaboration of D. Abramovich et al., 1992, Flips and abundance for algebraic threefolds: a summer seminar at the University of Utah (Salt Lake City, 1991), Société Mathématique de France
- Kollár, J., 1995, Shafarevich maps and automorphic forms, Princeton University Press
- Kollár, J., 1996, Rational curves on algebraic varieties, Springer
- Kollár, J., Lazarsfeld, R. & Morrison, D. R., eds., 1997, Algebraic geometry, Santa Cruz 1995: Summer Research Institute on Algebraic Geometry, July 9-29, 1995, University of California, Santa Cruz, AMS
- Kollár, J., ed., 1997, Complex algebraic geometry, AMS, Institute for Advanced Study
- Kollár, J. & Mori, S., with the collaboration of Clemens, C. H. & Corti, A., 1998, Birational geometry of algebraic varieties, Cambridge University Press
- Lazarsfeld, R., 2004, Positivity in algebraic geometry, Springer
- Vakil, R.; Kelly, T., illus., 1996, A mathematical mosaic: patterns & problem solving, Brendan Kelly
- Vakil, R., ed., 2005, Snowbird lectures in algebraic geometry: AMS-IMS-SIAM Joint Summer Research Conference on Algebraic Geometry—Presentations by Young Researchers, Snowbird, Utah, July 4-8, 2004, AMS