

Bibliography

- [EGA] A. Grothendieck and J. Dieudonné, *Éléments de Géométrie Algébrique I, II, III, IV*, Inst. Hautes Études Sci. Publ. Math. No. **4**, **8**, **11**, **17**, **20**, **24**, **28**, **32** (1960–67).
- [EGA I] ———, *Éléments de Géométrie Algébrique I*, Springer-Verlag, Berlin, Heidelberg, New York, 1971, Die Grundlehren der mathematischen Wissenschaften, Band 166.

1. D. Abramovich and F. Oort, *Stable maps and Hurwitz schemes in mixed characteristics*, Advances in algebraic geometry motivated by physics (Lowell, MA, 2000), Amer. Math. Soc., Providence, RI, 2001, pp. 89–100.
2. D. Abramovich and A. Vistoli, *Compactifying the space of stable maps*, J. Amer. Math. Soc. **15** (2002), no. 1, 27–75.
3. M. Artin, *Grothendieck topologies*, Cambridge, Mass, 1962, Mimeographed lecture notes.
4. ———, *Algebraic spaces*, Yale University Press, New Haven, Conn., 1971, A James K. Whittemore Lecture in Mathematics given at Yale University, 1969, Yale Mathematical Monographs, vol. 3.
5. ———, *Versal deformations and algebraic stacks*, Invent. Math. **27** (1974), 165–189.
6. M. Artin and G. Winters, *Degenerate fibres and stable reduction of curves*, Topology **10** (1971), 373–383.
7. W. Baily, *The decomposition theorem for V-manifolds*, Amer. J. Math. **78** (1956), 862–888.
8. A. Beauville, *Vector bundles on curves and generalized theta functions: recent results and open problems*, Current topics in complex algebraic geometry (Berkeley, CA, 1992/93), Math. Sci. Res. Inst. Publ., vol. 28, Cambridge Univ. Press, Cambridge, 1995, pp. 17–33.
9. A. Beauville and Y. Laszlo, *Un lemme de descente*, C. R. Acad. Sci. Paris Sér. I Math. **320** (1995), no. 3, 335–340.
10. K. Behrend and B. Fantechi, *The intrinsic normal cone*, Invent. Math. **128** (1997), no. 1, 45–88.
11. J. Bénabou, *Introduction to bicategories*, Reports of the Midwest Category Seminar, Springer, Berlin, 1967, pp. 1–77.
12. F. Borceux, *Handbook of categorical algebra*, Encyclopedia of Mathematics Series, Cambridge University Press, 1994, 3 vols.
13. S. Bosch, W. Lütkebohmert, and M. Raynaud, *Néron models*, Ergebnisse der Mathematik und ihrer Grenzgebiete (3), vol. 21, Springer-Verlag, Berlin, 1990.
14. N. Bourbaki, *Commutative algebra. Chapters 1–7*, Springer-Verlag, Berlin, 1998, Translated from the French, Reprint of the 1989 English translation.
15. L. Breen, *Bitorseurs et cohomologie non abélienne*, The Grothendieck Festschrift, Vol. I, Progr. Math., vol. 86, Birkhäuser Boston, Boston, MA, 1990, pp. 401–476.
16. R. Brown, *From groups to groupoids: a brief survey*, Bull. London Math. Soc. **19** (1987), no. 2, 113–134.
17. H. Cartan, *Quotient d'un espace analytique par un groupe d'automorphismes*, Algebraic geometry and topology, Princeton University Press, Princeton, NJ, 1957, A symposium in honor of S. Lefschetz, pp. 90–102.
18. A. Connes, *Noncommutative geometry*, Academic Press Inc., San Diego, CA, 1994.

19. P. Deligne, *Courbes elliptiques: formulaire d'après J. Tate*, Modular functions of one variable, IV (Proc. Internat. Summer School, Univ. Antwerp, Antwerp, 1972), Lecture Notes in Math., vol. 476, Springer, Berlin, 1975, pp. 53–73.
20. P. Deligne and D. Mumford, *The irreducibility of the space of curves of given genus*, Inst. Hautes Études Sci. Publ. Math. **36** (1969), 75–109.
21. P. Deligne and M. Rapoport, *Les schémas de modules de courbes elliptiques*, pp. 143–316. Lecture Notes in Math., Vol. 349, Springer, Berlin, 1973.
22. D. Edidin and W. Graham, *Equivariant intersection theory*, Invent. Math. **131** (1998), no. 3, 595–634.
23. D. Edidin, B. Hassett, A. Kresch, and A. Vistoli, *Brauer groups and quotient stacks*, Amer. J. Math. **123** (2001), no. 4, 761–777.
24. D. Eisenbud and J. Harris, *The geometry of schemes*, Springer-Verlag, New York, 2000.
25. G. Faltings and C.-L. Chai, *Degeneration of abelian varieties*, Ergebnisse der Mathematik und ihrer Grenzgebiete (3), vol. 22, Springer-Verlag, Berlin, 1990, With an appendix by David Mumford.
26. W. Fulton, *Hurwitz schemes and irreducibility of moduli of algebraic curves*, Ann. of Math. (2) **90** (1969), 542–575.
27. ———, *Intersection theory*, second ed., Springer-Verlag, Berlin, 1998.
28. P. Gabriel and M. Zisman, *Calculus of fractions and homotopy theory*, Springer-Verlag New York, Inc., New York, 1967.
29. D. Gieseker, *Geometric invariant theory and applications to moduli problems*, Invariant theory (Montecatini, 1982), Lecture Notes in Math., vol. 996, Springer, Berlin, 1983, pp. 45–73.
30. H. Gillet, *Intersection theory on algebraic stacks and Q -varieties*, J. Pure Appl. Algebra **34** (1984), 193–240, Proceedings of the Luminy conference on algebraic K -theory (Luminy, 1983).
31. J. Giraud, *Cohomologie non abélienne*, Springer-Verlag, Berlin, 1971, Die Grundlehren der mathematischen Wissenschaften, Band 179.
32. R. Gordon, A. J. Power, and R. Street, *Coherence for tricategories*, Mem. Amer. Math. Soc. **117** (1995), no. 558, vi+81.
33. A. Gorokhovsky and J. Lott, *Local index theory over étale groupoids*, J. Reine Angew. Math. **560** (2003), 151–198.
34. W. Graham, *On the Kähler package for orbifolds*, preprint.
35. A. Grothendieck, *Technique de descente et théorèmes d'existence en géométrie algébrique. I. Généralités. Descente par morphismes fidèlement plats*, Séminaire Bourbaki, 12e année, 1959/60, Exposé 190, Secrétariat mathématique, Paris, 1960.
36. ———, *Techniques de construction et théorèmes d'existence en géométrie algébrique. III. Préschémas quotients*, Séminaire Bourbaki, 13e année, 1960/61, Exposé 212, Secrétariat mathématique, Paris, 1961.
37. ———, *Techniques de construction et théorèmes d'existence en géométrie algébrique. IV. Les schémas de Hilbert*, Séminaire Bourbaki, 13e année, 1960/61, Exposé 221, Secrétariat mathématique, Paris, 1961.
38. ———, *Revêtements étales et groupe fondamental*, Springer-Verlag, Berlin, 1971, Séminaire de Géométrie Algébrique du Bois Marie 1960–1961 (SGA 1), Dirigé par Alexandre Grothendieck. Augmenté de deux exposés de M. Raynaud, Lecture Notes in Math., Vol. 224.
39. ———, *Groupes de monodromie en géométrie algébrique. I*, Springer-Verlag, Berlin, 1972, Séminaire de Géométrie Algébrique du Bois-Marie 1967–1969 (SGA 7 I), Dirigé par A. Grothendieck. Avec la collaboration de M. Raynaud et D. S. Rim, Lecture Notes in Math., Vol. 288.
40. ———, *Théorie des topos et cohomologie étale des schémas. Tome 1: Théorie des topos*, Springer-Verlag, Berlin, 1972, Séminaire de Géométrie Algébrique du Bois-Marie 1963–1964 (SGA 4), Dirigé par M. Artin, A. Grothendieck, et J. L. Verdier. Avec la collaboration de N. Bourbaki, P. Deligne et B. Saint-Donat, Lecture Notes in Math., Vol. 269.

41. ———, *Théorie des topos et cohomologie étale des schémas. Tome 2*, Springer-Verlag, Berlin, 1972, Séminaire de Géométrie Algébrique du Bois-Marie 1963–1964 (SGA 4), Dirigé par M. Artin, A. Grothendieck et J. L. Verdier. Avec la collaboration de N. Bourbaki, P. Deligne et B. Saint-Donat, Lecture Notes in Math., Vol. 270.
42. ———, *Théorie des topos et cohomologie étale des schémas. Tome 3*, Springer-Verlag, Berlin, 1973, Séminaire de Géométrie Algébrique du Bois-Marie 1963–1964 (SGA 4), Dirigé par M. Artin, A. Grothendieck et J. L. Verdier. Avec la collaboration de P. Deligne et B. Saint-Donat, Lecture Notes in Math., Vol. 305.
43. A. Haefliger, *Groupoïdes d'holonomie et classifiants*, Astérisque (1984), no. 116, 70–97, Transversal structure of foliations (Toulouse, 1982).
44. J. Harris and I. Morrison, *Moduli of curves*, Graduate Texts in Mathematics, vol. 187, Springer-Verlag, New York, 1998.
45. J. Harris and D. Mumford, *On the Kodaira dimension of the moduli space of curves*, Invent. Math. **67** (1982), no. 1, 23–88, With an appendix by William Fulton.
46. R. Hartshorne, *Residues and duality*, Lecture notes of a seminar on the work of A. Grothendieck, given at Harvard 1963/64. With an appendix by P. Deligne. Lecture Notes in Math., Vol. 20, Springer-Verlag, Berlin, 1966.
47. ———, *Algebraic geometry*, Springer-Verlag, New York, 1977, Graduate Texts in Mathematics, No. 52.
48. N. M. Katz and B. Mazur, *Arithmetic moduli of elliptic curves*, Annals of Mathematics Studies, vol. 108, Princeton University Press, Princeton, N.J., 1985.
49. T. Kawasaki, *The signature theorem for V-manifolds*, Topology **17** (1978), no. 1, 75–83.
50. S. Keel and S. Mori, *Quotients by groupoids*, Ann. of Math. (2) **145** (1997), no. 1, 193–213.
51. G. M. Kelly and R. Street, *Review of the elements of 2-categories*, Category Seminar (Proc. Sem., Sydney, 1972/1973), Springer, Berlin, 1974, pp. 75–103. Lecture Notes in Math., Vol. 420.
52. S. Kimura, *Fractional intersection and bivariant theory*, Comm. Algebra **20** (1992), no. 1, 285–302.
53. S. L. Kleiman, *Geometry on Grassmannians and applications to splitting bundles and smoothing cycles*, Inst. Hautes Études Sci. Publ. Math. (1969), no. 36, 281–297.
54. F. F. Knudsen, *The projectivity of the moduli space of stable curves, II: The stacks $M_{g,n}$* , Math. Scand. **52** (1983), no. 2, 161–199.
55. ———, *The projectivity of the moduli space of stable curves, III: The line bundles on $M_{g,n}$, and a proof of the projectivity of $\overline{M}_{g,n}$ in characteristic 0*, Math. Scand. **52** (1983), no. 2, 200–212.
56. D. Knutson, *Algebraic spaces*, Springer-Verlag, Berlin, 1971, Lecture Notes in Math., Vol. 203.
57. J. Kollár, *Quotient spaces modulo algebraic groups*, Ann. of Math. (2) **145** (1997), no. 1, 33–79.
58. A. Kresch, *Canonical rational equivalence of intersections of divisors*, Invent. Math. **136** (1999), no. 3, 483–496.
59. ———, *Cycle groups for Artin stacks*, Invent. Math. **138** (1999), no. 3, 495–536.
60. K. Lamotke, *Semisimpliziale algebraische Topologie*, Die Grundlehren der mathematischen Wissenschaften, Band 147, Springer-Verlag, Berlin, 1968.
61. G. Laumon and L. Moret-Bailly, *Champs algébriques*, Ergebnisse der Mathematik und ihrer Grenzgebiete (3), vol. 39, Springer-Verlag, Berlin, 2000.
62. T. Leinster, *Basic bicategories*, (1998), math.CT/9810017.
63. ———, *Homotopy algebras for operads*, (2000), math.QA/0002180.
64. Q. Liu, *Algebraic geometry and arithmetic curves*, Oxford Graduate Texts in Mathematics, vol. 6, Oxford University Press, Oxford, 2002, Translated from the French by Reinie Ern e, Oxford Science Publications.
65. S. MacLane, *Categories for the working mathematician*, Springer-Verlag, New York, 1971, Graduate Texts in Mathematics, Vol. 5.

66. H. Matsumura, *Commutative ring theory*, second ed., Cambridge Studies in Advanced Mathematics, vol. 8, Cambridge University Press, Cambridge, 1989, Translated from the Japanese by M. Reid.
67. J. P. May, *Simplicial objects in algebraic topology*, University of Chicago Press, Chicago, IL, 1992, Reprint of the 1967 original.
68. J. S. Milne, *Étale cohomology*, Princeton Mathematical Series, vol. 33, Princeton University Press, Princeton, N.J., 1980.
69. J. Milnor, *Dynamics in one complex variable*, Friedr. Vieweg & Sohn, Braunschweig, 1999, Introductory lectures.
70. I. Moerdijk and D. A. Pronk, *Orbifolds, sheaves and groupoids*, *K-Theory* **12** (1997), no. 1, 3–21.
71. D. Mumford, *Picard groups of moduli problems*, *Arithmetical Algebraic Geometry* (Proc. Conf. Purdue Univ., 1963), Harper & Row, New York, 1965, pp. 33–81.
72. ———, *Lectures on curves on an algebraic surface*, Princeton University Press, Princeton, N.J., 1966, With a section by G. M. Bergman. *Annals of Mathematics Studies*, No. 59.
73. ———, *Towards an enumerative geometry of the moduli space of curves*, (1983), 271–328.
74. ———, *The red book of varieties and schemes*, *Lecture Notes in Math.*, vol. 1358, Springer-Verlag, Berlin, 1988.
75. D. Mumford, J. Fogarty, and F. Kirwan, *Geometric invariant theory*, third ed., *Ergebnisse der Mathematik und ihrer Grenzgebiete (2)*, vol. 34, Springer-Verlag, Berlin, 1994.
76. M. C. Olsson, *Logarithmic geometry and algebraic stacks*, *Ann. Sci. École Norm. Sup. (4)* **36** (2003), no. 5, 747–791.
77. ———, *On proper coverings of Artin stacks*, *Adv. Math.* (to appear).
78. D. Prill, *Local classification of quotients of complex manifolds by discontinuous groups*, *Duke Math. J.* **34** (1967), 375–386.
79. D. Quillen, *Higher algebraic K-theory. I*, (1973), 85–147. *Lecture Notes in Math.*, Vol. 341.
80. I. Satake, *On a generalization of the notion of manifold*, *Proc. Nat. Acad. Sci. U.S.A.* **42** (1956), 359–363.
81. G. Segal, *Classifying spaces and spectral sequences*, *Inst. Hautes Études Sci. Publ. Math.* **34** (1968), 105–112.
82. J.-P. Serre, *Géométrie algébrique et géométrie analytique*, *Ann. Inst. Fourier, Grenoble* **6** (1955–1956), 1–42.
83. ———, *A course in arithmetic*, Springer-Verlag, New York, 1973, Translated from the French, *Graduate Texts in Mathematics*, No. 7.
84. B. Siebert, *Symplectic Gromov-Witten invariants*, *New trends in algebraic geometry* (Warwick, 1996), Cambridge Univ. Press, Cambridge, 1999, pp. 375–424.
85. J. H. Silverman, *The arithmetic of elliptic curves*, *Graduate Texts in Mathematics*, vol. 106, Springer-Verlag, New York, 1986.
86. ———, *Advanced topics in the arithmetic of elliptic curves*, *Graduate Texts in Mathematics*, vol. 151, Springer-Verlag, New York, 1994.
87. B. Toen, *Théorèmes de Riemann-Roch pour les champs de Deligne-Mumford*, *K-Theory* **18** (1999), no. 1, 33–76.
88. B. Totaro, *The Chow ring of a classifying space*, *Algebraic K-theory* (Seattle, WA, 1997), Amer. Math. Soc., Providence, RI, 1999, pp. 249–281.
89. A. Vistoli, *Intersection theory on algebraic stacks and on their moduli spaces*, *Invent. Math.* **97** (1989), no. 3, 613–670.
90. R. M. Vogt, *A note on homotopy equivalences*, *Proc. Amer. Math. Soc.* **32** (1972), 627–629.