

CONVENTIONS

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1. Comments

0003 The philosophy behind the conventions used in writing these documents is to choose those conventions that work.

2. Set theory

0004 We use Zermelo-Fraenkel set theory with the axiom of choice. See [Kun83]. We do not use universes (different from SGA4). We do not stress set-theoretic issues, but we make sure everything is correct (of course) and so we do not ignore them either.

3. Categories

0005 A category \mathcal{C} consists of a set of objects and, for each pair of objects, a set of morphisms between them. In other words, it is what is called a “small” category in other texts. We will use “big” categories (categories whose objects form a proper class) as well, but only those that are listed in Categories, Remark 2.2.

4. Algebra

0006 In these notes a ring is a commutative ring with a 1. Hence the category of rings has an initial object \mathbf{Z} and a final object $\{0\}$ (this is the unique ring where $1 = 0$). Modules are assumed unitary. See [Eis95].

5. Notation

055X The natural integers are elements of $\mathbf{N} = \{1, 2, 3, \dots\}$. The integers are elements of $\mathbf{Z} = \{\dots, -2, -1, 0, 1, 2, \dots\}$. The field of rational numbers is denoted \mathbf{Q} . The field of real numbers is denoted \mathbf{R} . The field of complex numbers is denoted \mathbf{C} .

6. Other chapters

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| Preliminaries | (43) Intersection Theory |
| (1) Introduction | (44) Picard Schemes of Curves |
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| (7) Sites and Sheaves | (50) de Rham Cohomology |
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| (26) Schemes | (69) Cohomology of Algebraic Spaces |
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| (30) Cohomology of Schemes | (73) Topologies on Algebraic Spaces |
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| (35) Descent | (78) Groupoids in Algebraic Spaces |
| (36) Derived Categories of Schemes | (79) More on Groupoids in Spaces |
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| (40) More on Groupoid Schemes | (82) Chow Groups of Spaces |
| (41) Étale Morphisms of Schemes | (83) Quotients of Groupoids |
| Topics in Scheme Theory | (84) More on Cohomology of Spaces |
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| | (86) Duality for Spaces |

(87) Formal Algebraic Spaces	(103) Cohomology of Algebraic Stacks
(88) Algebraization of Formal Spaces	(104) Derived Categories of Stacks
(89) Resolution of Surfaces Revisited	(105) Introducing Algebraic Stacks
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(100) Properties of Algebraic Stacks	(116) GNU Free Documentation License
(101) Morphisms of Algebraic Stacks	(117) Auto Generated Index
(102) Limits of Algebraic Stacks	

References

- [Eis95] David Eisenbud, *Commutative algebra*, Graduate Texts in Mathematics, vol. 150, Springer-Verlag, 1995.
- [Kun83] Kenneth Kunen, *Set theory*, Elsevier Science, 1983.