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CONVENTIONS USED IN THE ALGEBRAIC STACKS DOCUMENTS

Contents

Section 1. Comments

The philosophy behind the conventions used in writing these documents is to choose those conventions that work. In the end the precise choices we make here probably do not make a big difference in the resulting theory of algebraic stacks of finite type over the integers (or over a field, or over an excellent Noetherian ring). Also, perhaps the higher level thoery is flexible enough so as to allow for different choices here, but still we have to choose one.

Occasionally it will be necessary to have use notation that does not follow the conventions. In this case it will always be explicitly stated.

Section 2. Set theory

We use Zermelo-Fraenkel set theory with the axiom of choice. See [Kun83].

Section 3. Categories

A category C consists of a set of objects, and for each pair of objects a set of morphisms between them. There are no set theoretic difficulties in defining functors and natural transformations of functors. We will call a natural transformation of functors $F \to G$ simply a morphism of functors.

Section 4. Algebra

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].

To continue reading,

(1) visit the next section: Sets, Section 1, or
(2) go back to the table of contents: index.html#contents.

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References

[Eis95] David Eisenbud. *Commutative Algebra*, volume 150 of *Graduate Texts in Mathematics*. Springer-Verlag, 1995.

[Kun83] Kenneth Kunen. *Set Theory*. Elsevier Science, 1983.