ALGEBRAIC STACKS

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Overview

These notes roughly correspond to an attempt to learn stack theory that began in the winter of 2023. We will begin with the categorical preliminaries as laid out in [3] before developing the basic theory per the text of Olsson [1] and conclude with a sampling of the more advanced topics in [2, Part 7].

Contents

1. Sites

References

[1] Martin Olsson. *Algebraic spaces and stacks.* English. Vol. 62. Colloq. Publ., Am. Math. Soc. Providence, RI: American Mathematical Society (AMS), 2016. ISBN: 978-1-4704-2798-6; 978-1-4704-2865-5.

[2] The Stacks project authors. *The Stacks project.* `https://stacks.math.columbia.edu`. 2023.

[3] Angelo Vistoli. *Notes on Grothendieck topologies, fibered categories and descent theory.* 2007. arXiv: `math/0412512 [math.AG]`.

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