

A brief introduction of stacks

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1 What is stack?

Grothendieck idea: find categorical object satisfies fpqc descend.

2 How to use 2-Yondeda Lemma in Moduli Theory?

3 Examples

3.1 Quotient stack and classifying stack

We then introduce the universal property of quotient stack.

3.2 Moduli stack of curves

3.3 Moduli stack of coherent sheaves and vector bundles

References