On weakly étale morphisms. (English) Zbl 07755446
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Summary: We show that the weakly étale morphisms, used to define the pro-étale site of a scheme, are characterized by a lifting property similar to the one which characterizes formally étale morphisms. In order to prove this, we prove a theorem called Henselian descent which is a “Henselized version” of the fact that a scheme defines a sheaf for the fpqc topology. Finally, we show that weakly étale algebras over regular rings arising in geometry are ind-étale and that weakly étale algebras do not always lift along surjective ring homomorphisms.

MSC:
14A15 Schemes and morphisms
14B25 Local structure of morphisms in algebraic geometry: étale, flat, etc.
13B40 Étale and flat extensions; Henselization; Artin approximation

Full Text: DOI arXiv

References:

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