ANABELIAN GEOMETRY IN A MODEL THEORY SETTING

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I will present a model-theoretic formalism for treating analytic and pro-etale covers of algebraic varieties. This allows a reformulation of Grothendieck's anabelian geometry. It also allows to consider questions of categoricity of respective theories (or rather abstract elementary classes).

A series of results obtained in 2002–2015 for semi-abelian varieties demonstrated that categoricity is equivalent to the classification of the action of Galois groups on the torsion subgroups together with relevant Kummer theory. In anabelian cases categoricity leads directly to conjectures about the action of Galois group on pro-finite fundamental group first raised in Grothendieck's "Esquisse d'un programme."

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