About covering spaces and numbers

Professor Florian Pop   pop@math.upenn.edu
University of Pennsylvania
Philadelphia, U.S.A.

Abstract

In his "Esquisse d'un Programme" Grothendieck presented a grand vision about a new approach to some of the most fundamental question in algebraic/arithmetic geometry and in number theory. This generated an intensive -almost frantic- research in several directions, from trying to understand the poly-logs and the multi-zeta values to developing approaches for an effective proof of the Mordell conjecture (Falting's Theorem) to decoding anabelian schemes from their Galois theory to describing the (absolute) Galois groups as automorphism groups of variants of fundamental group functors. In my talk I will touch upon aspects of the last question mentioned above. This question ties in with ideas of Bogomolov for a birational anabelian program which goes beyond Grothendieck's birational anabelian conjectures, and reshapes our understanding about the nature of (birational) anabelian phenomena.

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