Gaël Rémond
Université Bordeaux I
Siegel fields

Given a property shared by all number fields, one may wonder to which infinite algebraic extensions of the rationals it can be extended. Starting with Bombieri and Zannier, this has been investigated for the Northcott and Bogomolov properties. Here we introduce the Siegel property, that is, we search for fields over which a Siegel lemma holds. As a guiding example, we know that the field of all algebraic numbers is a Siegel field by Roy-Thunder-Zhang. We provide other examples and some consequences of the property. As an unexpected by-product we prove that the constant in the Siegel lemma deduced from Zhang's theorem is best possible.