

This paper proves equationality of the theories SCF of separably closed fields of arbitrary inseparability degree, and of the theories ACFP of proper (i.e. belles) pairs of algebraically closed fields of arbitrary characteristic. This was previously known for separably closed fields of finite inseparability degree by a result of Srouf [18], and for ACFP₀ by a result of Günaydn [5]. Equationality means that every formula is equivalent to a boolean combination of equations. In the case of SCF, the sufficient set of equations they find (“ λ -tame formulas”) is defined recursively in terms of the λ -functions. For ACFP, by adapting techniques of Günaydn to arbitrary characteristic, they show that a sufficient set of equations is given by the formulas expressing linear dependence over the smaller field of tuples of integer polynomials.

An extended version of this paper, containing in particular a proof of equationality of DCF _{p} and as a consequence an alternative proof of equationality of SCF _{p,∞} , is available on the arXiv.

Review licensed under CC-BY-SA 4.0 by Martin Bays 2022