Refutation of Tannakian categories via profinite groups of Iwasawa embedding

Abstract: We evaluate the seminal equation to axiomatize profinite groups with the Iwasawa embedding property. It is *not* tautologous. This taints Tannakian categories and subsequent conjectures to establish model theory of proalgebraic (pro-affine algebraic) groups. These conjectures form a *non* tautologous fragment of the universal logic VŁ4.

We assume the method and apparatus of Meth8/VŁ4 with Tautology as the designated proof value, **F** as contradiction, N as truthity (non-contingency), and C as falsity (contingency). The 16-valued truth table is row-major and horizontal, or repeating fragments of 128-tables, sometimes with table counts, for more variables. (See ersatz-systems.com.)

LET ~ Not, ¬ ; + Or, ∨, ∪, ⊔ ; - Not Or; & And, ∧, ∩, ⊓ , · , ⊗ ; \ Not And;
> Imply, greater than, →, ⇒ , ↦, ≻, ⊃, ↠ ; < Not Imply, less than, ∈, ≺, ⊂, ⊬, ⊭, ↞, ≲ ;
= Equivalent, ≡, :=, ⇔, ↔, ≜, ≈, ≃ ; @ Not Equivalent, ≠, ⊕;
% possibility, for one or some, ∃, ◊, M; # necessity, for every or all, ∀, □, L;
(z=z) T as tautology, ⊤, ordinal 3; (z@z) **F** as contradiction, Ø, Null, ⊥ , zero;
(%z>#z) N as non-contingency, Δ, ordinal 1; (%z<#z) C as contingency, ∇, ordinal 2;
~(y < x) (x ≤ y), (x ⊆ y), (x ⊑ y); (A=B) (A~B).
Note for clarity, we usually distribute quantifiers onto each designated variable.

From: Pillay, A.; Wibmer, M. (2019). Model theory of proalgebraic groups. arxiv.org/pdf/1908.10064.pdf

Abstract We lay the foundations for a model theoretic study of proalgebraic groups (more accurate to use the term "pro-affine algebraic group" or "affine group scheme"). Our axiomatization is based on the [T]annakian philosophy.

Introduction The theory T_{IP} axiomatizes profinite groups G having the Iwasawa (or embedding) property: Any diagram G→A, G→B, B→A where B→A is an epimorphism of finite groups and G→A is an epimorphism can be completed to a commutative diagram via an epimorphism G→B, if B is a quotient of G. (1.1)

LET p, q, r, s: A, B, G, Divisor.

((q>p)&(r>p))>(((r\s)>q)>(r>q)) ; TTTT TTTT TTTT TT**F**T (1.2)

Remark 1.2: Eq. 1.2 as rendered is *not* tautologous. This refutes the profinite groups of Iwasawa embedding, taints Tannakian categories, and taints subsequent conjectures to establish model theory of proalgebraic (pro-affine algebraic) groups.