- $1 \in B$
- $$(\exists y)\, y^p = x \longleftrightarrow \bigwedge_{b \in B \setminus \{1\}} \lambda_b(x) = 0$$

- $[L : L^p] < \aleph_o$
-

$$X = \sum_{b' \in B'} x_{b'}^{p^n} b'$$

- B' basis for L/L^{p^n}

- $L = \mathbb{F}_p(t)$
- $B = \{1, t, t^2, \ldots, t^{p-1}\}$
-

$$\frac{\partial}{\partial t}\left(\sum \lambda_i(x)^p t^i\right) = \sum i\lambda_i(x)^p t^{i-1}$$

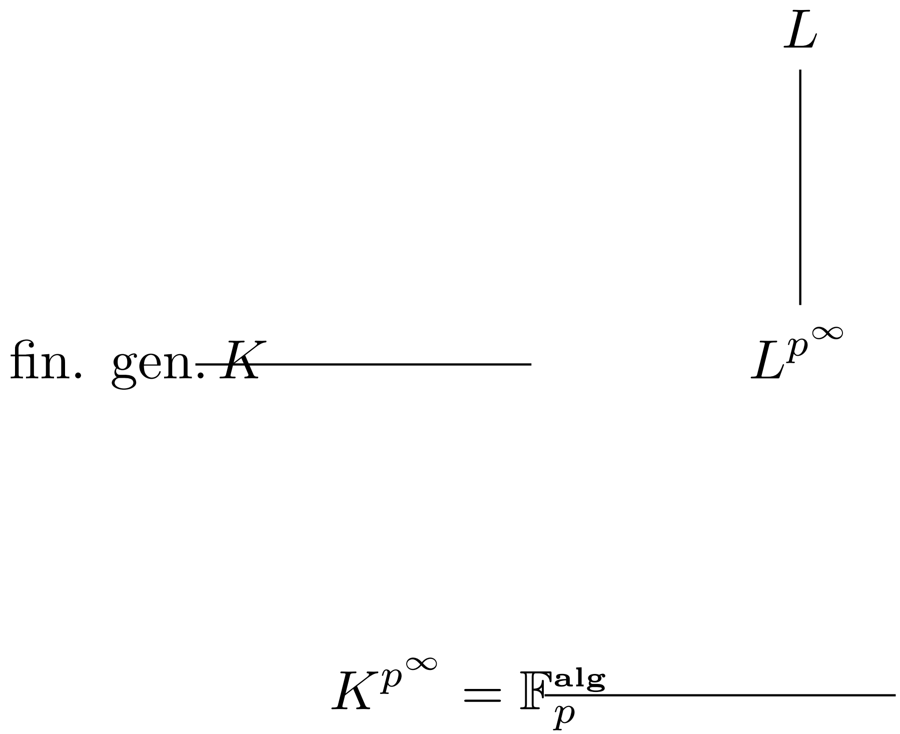
- $X \subseteq L^n$ ∞-defined over $K \subseteq L$ for K "small"
- $\mathbf{TrDeg}(X) := \mathbf{sup}_{a \in X} \left\{ \mathbf{TrDeg}_K \left(K \left(\lambda_{\vec{b}}(a) \mid \vec{b} \text{ is tuple from } B \right) \right) \right\}$

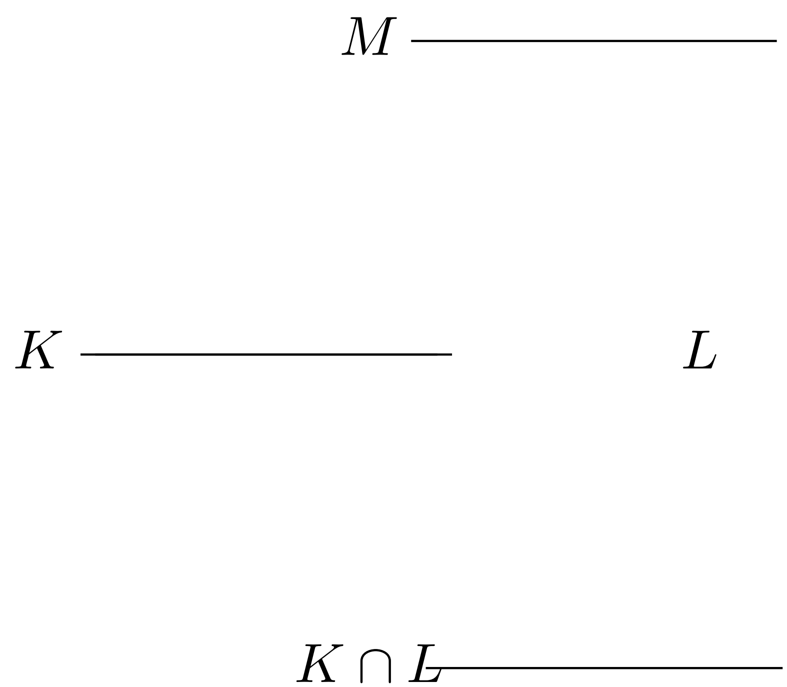
$L \xrightarrow{\phi_t} L$ if ϕ_t is seperable

$$0 \leq H \leq \phi^{\#}$$

$$\phi^{\#} \xrightarrow{\alpha} \mathbb{G}_a(k)$$

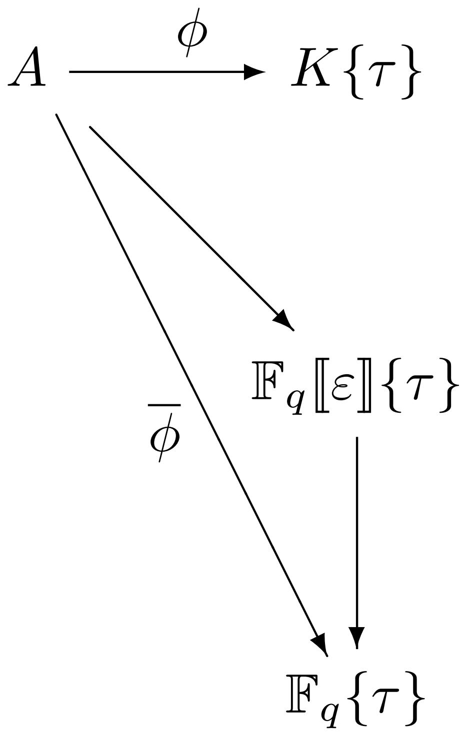
$$\forall n \in \mathbb{N}\, \exists \lambda_n \in L^\times \quad \lambda_n^{-1} \phi \lambda_n \in L^{p^n}\{\tau\}$$


L
fin. gen. K
L^{p^∞}
$K^{p^\infty} = \mathbb{F}_p^{\mathbf{alg}}$



If K and L are algebraically independent over $K \cap L$ then:

$$(K, +, \times, (K \cap L)) \preceq (M, +, \times, (L))$$

- 

- $\sum x_i \varepsilon^i \longmapsto \sum x_i^q \varepsilon^i$