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Ramification Groups of Local Fields
with Geometric Applications
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ERRATA

Page 6, Theorem 1.1.10, (2)⇒(1):

that B is finite over A and $B[1/b]$ is étale over A. By replacing A by the localization $A_{\mathfrak{p}}$, we may assume that A is local and that $\mathfrak{p}$ is the maximal ideal.

Page 6, Theorem 1.1.10, last sentence on the page:

Hence, there exist a monic polynomial $P \in A[X]$ of degree n and a surjection $C = A[X]/(P) \to C' = A[x] \subset B$.

Page 7, Theorem 1.1.10, first paragraph:

Let $\mathfrak{n} \subset C$ and $\mathfrak{n}' \subset C'$ be the inverse images of $\mathfrak{q} \subset B$. Since $\mathfrak{q} \in \operatorname{Spec} B$ is a unique point above $\mathfrak{n}' \in \operatorname{Spec} C'$ and since the morphism $C'/\mathfrak{n}' \to B/\mathfrak{n}'B = B/\mathfrak{q}$ is an isomorphism, the finite surjection $C'_{\mathfrak{n}'} \to B \otimes_{C'} C'_{\mathfrak{n}'}$ is an isomorphism by Nakayama's lemma. Since $B \otimes_{C'} C'_{\mathfrak{n}'}$ is a local ring, we have $B \otimes_{C'} C'_{\mathfrak{n}'} = B_{\mathfrak{q}}$. Since C and $B[1/b]$ are flat of finite presentation over A, and

Page 23, Proof of (1) line 8:

Since $O_{K'}[Z]/(Z^m - v)$

Page 24, line 12:

remove: ramified

Page 24, line 23, line 4 from below:

widely > wildly

Page 26, Corollary 1.5.11, line 2:

remove: and let $M \subset L$ be the maximal tamely ramified extension

Page 42, displayed equality in the middle, second line:

$$= \sum_{\rho \in S} \sum_{\tau \in H} \operatorname{ord}_L \left(\frac{\sigma\rho\tau(s)}{s} - 1 \right).$$

Page 47, 2 lines below (1.9.7):

Since $P_i'(s_i) = \prod_{\sigma \in G_{i-1}/G_i - \{1\}} (s_i - \sigma(s_i))$,

Page 47, (1.9.8) the right hand side:

$$= \sum_{\sigma \in G_{i-1}/G_i - \{1\}} i_{G_{i-1}/G_i}(\sigma).$$

Page 47, (1.9.9) the right hand side:

$$= \sum_{i=1}^{n} \sum_{\sigma \in G_{i-1}/G_i - \{1\}} e_{L/K_i} \cdot i_{G_{i-1}/G_i}(\sigma).$$

Page 60, line 3:

Proof By replacing K_1 by the henselization, we may assume that K_1 is henselian. Let $K_u \subset K_{1u}$ be the maximal unramified extensions. Then, we have a commutative diagram

$$\begin{array}{ccc} \mathrm{Br}(K_{1u}/K_1) & \longrightarrow & X_{F(T)} \\ \uparrow & & \uparrow \\ \mathrm{Br}(K_u/K) & \longrightarrow & X_F \end{array}$$

By Proposition 2.1.3(3) and (4) and by the assumption that $\mathrm{Br}\, F = 0$, the inclusion $\mathrm{Br}(K_u/K) \to \mathrm{Br}\, K$ is an isomorphism and the lower horizontal arrow is an isomorphism.

Page 176, (6.3.11) right hand side:

$$\frac{1}{\# I}$$