COMMENTS ON "TOPICS IN ABSOLUTE ANABELIAN GEOMETRY II: DECOMPOSITION GROUPS AND ENDOMORPHISMS"

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(1.) In the situation of Example 3.2, (ii) [cf. also Corollaries 3.3, 3.4], we observe that it follows immediately from the *k-coricity* condition in Definition 3.1, (a), that the *open subscheme* [i.e., strictly speaking, *open substack*] $U_X \subseteq X$ is *completely determined* by the positive integer N and, in particular, *independent* of the choice of finite étale coverings $V \to X$, $V \to D$. In fact, this independence is *implicit* in the statement of Corollary 3.4.

(2.) In the statement of Corollary 3.4, the phrase "**pro-finite étale covering** *of* X" should read "**pro-finite étale covering** *of* X_i".

(3.) In the Π-*chain* discussed in Corollary 3.7, (a), it is to be understood that the profinite group "Π_j" [cf. the notational conventions of [AbsTopI], Definition 4.2, (iii)] that corresponds to the *input* datum for the final "$\curlywedge$" in the associated type-chain — i.e., the profinite group that corresponds to the copy of the projective line minus three points "P" of Example 3.6, (ii) — is such that

· the corresponding "geometric fundamental group Δ_j" [cf. the notational conventions of [AbsTopI], Definition 4.2, (iii)] is a *profinite free group of rank* 2;
· the set of *conjugacy classes of cuspidal decomposition groups* in Δ_j is of *cardinality* 3

— i.e., such that Π_j does indeed correspond to a copy of the projective line minus three points [cf. [AbsTopI], Lemma 4.1, (iv); [AbsTopI], Lemma 4.5, (v)]. Note that, by [AbsTopI], Lemma 4.5, (v), these conditions on Π_j are *entirely group-theoretic*. Although these conditions were not stated explicitly in Corollary 3.7, (a), they were intended to be *implicit* in the phrase "*which admits an* **entirely 'group-theoretic' description**", together with the reference given in Corollary 3.7, (a), to Example 3.6, (ii).

(4.) In the final paragaraph of the proof of Corollary 2.10, the text "*totally ramified at precisely one closed point but unramified elsewhere*" should read "*totally ramified at some closed point*".

Bibliography

[AbsTopI] S. Mochizuki, Topics in Absolute Anabelian Geometry I: Generalities, *J. Math. Sci. Univ. Tokyo* **19** (2012), pp. 139-242.