COMMENTS ON “THE GEOMETRY OF FROBENIOIDS I”

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(1.) In Definition A.1 of the Appendix: The phrase “isomorphism classes of morphisms” in line 4 should read “isomorphism classes of 1-morphisms”. The phrase “coarsification of C” in line 5 should read “coarsification of D”.

(2.) The hypothesis that the Frobenioids under consideration be of “unit-profinite type” in Proposition 5.6 — hence also in Corollary 5.7, (iii) — may be removed. Indeed, if, in the notation of the proof of Proposition 5.6, one writes

\[ \phi'_p = c_p \cdot \phi_p, \]

where \( c_p \in O^\times(A) \), for \( p \in \text{Primes} \), then one has

\[ c_2 \cdot c_p^2 \cdot \phi_2 \cdot \phi_p = c_2 \cdot \phi_2 \cdot c_p \cdot \phi_p = \phi'_2 \cdot \phi'_p = \phi'_p \cdot \phi_2 \]

\[ = c_p \cdot \phi_p \cdot c_2 \cdot \phi_2 = c_p \cdot c_2^p \cdot \phi_p \cdot \phi_2 = c_p \cdot c_2^p \cdot \phi_2 \cdot \phi_p \]

— so \( c_2 \cdot c_p^2 = c_p \cdot c_2^p \), i.e., \( c_p = c_2^{p-1} \), for \( p \in \text{Primes} \). Thus, \( \phi'_p = c_2^{-1} \cdot \phi_p \cdot c_2 \), so by taking \( u \overset{\text{def}}{=} c_2^{-1} \), one may eliminate the final two paragraphs of the proof of Proposition 5.6.

(3.) In the second to last sentence of Definition 1.1, (ii), 

\[ \Phi_{pf} \]

should read as follows:

\[ \Phi_{pf} \]

(4.) The phrase “If \( M \) is a \( \mathbb{Q} \)-monoprime monoid” toward the end of the discussion entitled “Numbers” in §0 should read “If \( M \) is a \( \mathbb{Q} \)-or \( \mathbb{R} \)-monoprime monoid”.

(5.) In the proof of Theorem 3.4, (iv), the phrase “\( \alpha \) arises as the endomorphism of \( A \)” should read “\( \beta \) arises as the endomorphism of \( B \)”; also, in the same sentence, the notation “\( (P_i)_A \)” should read “\( (P_i)_B \)”.

(6.) The phrase “in which \( \alpha, \beta \) are primary with zero divisor in \( p \)” immediately following the final display of the proof of Theorem 4.9 should read “in which \( \alpha, \beta \) are primary;”.

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(7.) In the proof of Theorem 3.4, (i), the phrase “for each \( A \in \text{Ob}(\mathcal{C}_{\text{istr}}) \) that” should read “for each \( A \in \text{Ob}(\mathcal{C}_{\text{istr}}) \), that”.

(8.) In the proof of Theorem 4.2, (i), the phrase “[cf. also Theorem 3.4, (ii)]” should read “[cf. also Theorem 3.4, (ii), (iii)]”.

(9.) In the fourth paragraph of the proof of Theorem 5.1, the notation “\( \psi : B' \to C \)” should read “\( \psi' : B' \to C \)”.

(10.) In the first display of the proof of Theorem 5.2, (iv), the notation “\( (B \to A, A \to C) \)” should read “\( (B \to A, B \to C) \)”.

(11.) In Example 6.1, the phrase “may be identified with the group of Cartier divisors on \( V[L] \), and” should read “may be identified with the group of Cartier divisors on \( V[L] \) with support in \( D_L \), and”.

(12.) In the proof of Lemma 6.5, (ii), the phrase “Indeed, since the ...” should read “Indeed, suppose that there exist \( \lambda_1, \lambda_2 \in \mathbb{Q}_{>0} \) as in the statement of assertion (ii). Then since the ...”.

(13.) In the discussion of §0 entitled “Numbers” the phrase “Also, we shall refer to ...” should read “Here, we regard the elements of the set \( \{\mathbb{Z}, \mathbb{Q}, \mathbb{R}\} \) as being equipped with the ordering \( \mathbb{Z} < \mathbb{Q} < \mathbb{R} \). Also, we shall refer to ...”.

(14.) In §14, the phrase “that as appear as” should read “that appear as”.

(15.) In the second paragraph of the proof of Theorem 4.9, the phrase “this subset maps the subset” should read “this isomorphism maps the subset”.

(16.) In the discussion following the first display of Theorem 3.4, (iii), the notation “\( \Psi_{\geq 1}^{\mathbb{N}} \)” should read “\( \Psi_{\geq 1}^{\mathbb{N}} \)”.

(17.) In the first paragraph of the proof of Theorem 3.4, (iv), the phrase “existence of a a” should read “existence of a”.

(18.) In Example 6.1 and Theorem 6.2, the phrase “[possibly subvarieties of codimension \( \geq 1 \)]” (which is logically correct, but misleading) should be deleted.