

ERRATA TO THE ARTICLE “RAMIFICATION GROUPS OF COVERINGS AND VALUATIONS”

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(1) The construction of the cospecialization mapping (1-1) contains the following error. To apply [EGA IV₄ 1967, corollaire (18.9.11)], we need to assume that S is normal for example. Without this assumption, a connected double covering of an irreducible rational curve with a node gives a counterexample. In order to avoid this problem, we consider specializations $s \rightarrow t$ only in the following situation: Let T be the spectrum of a normal noetherian local ring and s, t be geometric points of T above the closed point and the generic points of T respectively. Then the cospecialization mapping (1-1) is defined for the base change $X \times_S T$. After this correction, the error has no effect in the sequel; Lemma 1.1.3 and the proof of Proposition 3.1.8.

(2) The proof of Lemma 2.2.4 has a gap in p. 399 l. 12. The problem arises from a confusion of two morphisms $D_T \rightarrow Y$: One is the composition $D_T \rightarrow Q^{[D]} \times_X D \rightarrow Y \times_X D \subset Y$ and the other is induced by the composition $T \rightarrow Z \times_X Y^{(D)} \rightarrow Y^{(D)}$ with the second projection.

(3) The proof of Proposition 3.2.10 is incomplete as it uses Lemma 2.2.4. In fact, Proposition 3.2.10 does not hold without some condition on R already in the case where X is the spectrum of a discrete valuation ring.

The author thanks Daichi Takeuchi for pointing out the problem on Proposition 3.2.10 and apologizes for the errors.

REFERENCES

- [1] —, *Ramification groups of coverings and valuations*, Tunisian J. of Math., Vol. 1, No. 3, 373–426, 2019.