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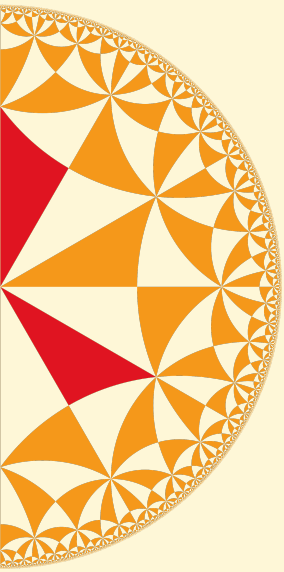

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Hara Charalambous,
Kostas Karagiannis & Aristides Kontogeorgis

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CORRIGENDUM TO "THE RELATIVE CANONICAL IDEAL OF THE KUMMER-ARTIN SCHREIER-WITT FAMILY OF CURVES"

Annales de l'Institut Fourier, vol. 73 (2023), no 3, 1085-1113

by Hara CHARALAMBOUS, Kostas KARAGIANNIS & Aristides KONTOGEORGIS

ABSTRACT. — We correct a few typographical erros and ambiguities in the above mentioned published paper.

RÉSUMÉ. — Nous corrigeons quelques erreurs typographiques et ambiguïtés dans l'article publié mentionné ci-dessus.

Dr. Bernhard Köck, who we wish to thank, kindly pointed to us a few typographical errors and ambiguities, which we address below.

- Page 1088, diagram: the labels of all vertical downwards pointing arrows should be $\otimes_R R/\mathfrak{m}_R$ instead of $\otimes_R R/\mathfrak{m}$.
- Page 1092, line before eq. (3.1): $\mathcal{X}_0$ should be replaced by $\mathcal{X}_0/K$.
- Page 1092, line after eq. (3.1): add the sentence "while we let $\mathcal{X}_0/k$ be the curve corresponding to the extension of the rational function field $k(x)$ given by $X^p - X = x^{\ell - pq}$."
- Page 1092, next sentence beginning with "Bertin-Mézard": replace "curve above" by "curve $\mathcal{X}_0/K$".
- Page 1093, diagram (3.3): the labels of all vertical downwards pointing arrows should be $\otimes_R R/\mathfrak{m}_R$ instead of $\otimes_R R/\mathfrak{m}$. Moreover $I_{\mathcal{X}_0}$ should be $I_{\mathcal{X}_0/k}$ both in diagram (3.3) and in the line right below.
- Pages 1093-1094, Theorem 3.2: Replace $I_{\mathcal{X}_0}$ by $I_{\mathcal{X}_0/k}$ once in the statement and four times in the proof of Theorem 3.2.
- Page 1095, line after eq. (4.1): replace "on the special fiber" by on "$\mathcal{X}_0/K$". Next line replace $\Omega_{\mathcal{X}_0/k}$ by $\Omega_{\mathcal{X}_0/K}$.

Keywords: Relative curves, Canonical ideal, Reduction and Lifting.
2020 *Mathematics Subject Classification:* 14H10, 14F10.

- Page 1095, last paragraph: replace k by K in three instances (first, fourth and last line of paragraph).
- Page 1104, line after eq. (5.1): add "$\mathcal{X}_0/k$ (given by $X^p - X = x^{\ell - pq}$) and" after "special fiber".
- Page 1104, eq. (5.1): change $\mathcal{X}_0$ to $\mathcal{X}_0/K$.
- Page 1107, line after diagram 5.1: add "$\subset R[\{W_{N,\mu}\}]$" after "$G_2^{\mathbf{c}}$".
- Page 1107, last line: change $I_{\mathcal{X}_0}$ to $I_{\mathcal{X}_0/k}$.
- Pages 1108 to 1110: throughout Section 5.1 replace k by K and $I_{\mathcal{X}_0}$ by $I_{\mathcal{X}_0/K}$.
- Page 1109, Remark 5.7: change to "... follows by verifying directly that $\phi_{0,\overline{\mathbf{c}}}(G_2^{\overline{\mathbf{c}}}) = 0$".
- Page 1109, line after Remark 5.7: add "considered over K" after "Definition 4.3".
- Page 1111: start the proof with the sentence "The arguments used in the proofs of Proposition 5.6 and Theorem 5.10, when $x_i = 0$ for $1 \leqslant i \leqslant q-1$ (and $i = q$ if applicable) imply that $\langle (G_1^{\mathbf{c}} \otimes_R k) \cup (G_2^{\mathbf{c}} \otimes_R k) \rangle = I_{\mathcal{X}_0/k}$."

BIBLIOGRAPHY

[1] H. Charalambous, K. Karagiannis & A. Kontogeorgis, "The relative canonical ideal of the Kummer–Artin Schreier–Witt family of curves", *Ann. Inst. Fourier* **73** (2023), no. 3, p. 1085-1113.

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Hara CHARALAMBOUS
Department of Mathematics, Aristotle University of Thessaloniki School of Sciences, 54124, Thessaloniki, Greece
hara@math.auth.gr

Kostas KARAGIANNIS
Department of Mathematics, Aristotle University of Thessaloniki School of Sciences, 54124, Thessaloniki, Greece
kkaragia@math.auth.gr

Aristides KONTOGEORGIS
Department of Mathematics, National and Kapodistrian University of Athens Panepistimioupolis, 15784 Athens, Greece
kontogar@math.uoa.gr