ERRATA:
HYPERGEOMETRIC DECOMPOSITION OF SYMMETRIC K3 QUARTIC PENCILS

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This note gives errata for the article Hypergeometric decomposition of symmetric K3 quartic pencils [1]. Thanks to Thais Gomes Ribeiro.

ERRATA

(1) Remark 3.1.2: last sentence should be replaced by “Accordingly, we will analyze below how our definition of finite field hypergeometric functions depends on these choices.”

(2) Before Definition 3.1.10: unless the field of definition is $K_{\alpha,\beta} = \mathbb{Q}$, there is a dependence on the choice of $\omega$. So it is only independent of the choice of character $\Theta$ in general.

(3) After Definition 3.1.10, replace paragraph with “Suppose that $\alpha,\beta$ is defined over $\mathbb{Q}$, i.e., $K_{\alpha,\beta} = \mathbb{Q}$. Then $H_{q}(\alpha,\beta| t)$ is independent of the choice of character $\omega$ again applying Remark 3.1.2 (more generally, see below).”

(4) Proposition 3.2.8(a): add “if $K_{\alpha,\beta} = \mathbb{Q}$”.

(5) Before Lemma 3.2.10: $\zeta(qx)$ should be $\zeta_q x$.

(6) Proof of Lemma 3.2.10(a): note this this argument more generally shows what happens if we replace $\omega$ by $\omega^k$.

(7) After (3.3.1): $\mu_q x$ should be $\mu_q x$.

(8) After (3.3.1) and Proof of Theorem 3.3.3: $\mu(qx)^r$ should be $(\mu_q x)^r$.

(9) In the reference [FG51], the last name is “Furtado Gomide”.

(10) Lemma 4.1.9(a): note that $L_p(H(\alpha,\beta| t), M, T)$ is also independent of the choice of multiplicative character (using the proof of Lemma 3.2.10).

REFERENCES

[1] Charles F. Doran, Tyler L. Kelly, Adriana Salerno, Steven Sperber, John Voight, and Ursula Whitcher, Hypergeometric decomposition of symmetric K3 quartic pencils, Res. Math. Sci. 7:7 (2020), 81 pages.

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