ERRATA FOR
"THE LARGE SIEVE, MONODROMY AND ZETA FUNCTIONS OF CURVES"
(CRELLE 601 (2006), 29–69)

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This paper contains a few errors which affect some of the statements, though the spirit of the results remains unaffected. They were found in the course of writing [K], which contains an enlarged discussion of generalizations of the large sieve inequality. Full corrected proofs of the statements mentioned below are also found there.

[1] Page 36, Line 11 : This bound is correct, but in fact one can replace κq^d with q^d. (This was remarked by Zywina and myself independently, and is implemented in the general context of [K]).

[2] Page 52, Line -11 : The functional equation is not correctly stated; it should read

$$q^g T^{2g} P_C\Big(\frac{1}{qT}\Big) = P_C(T).$$

This doesn't affect the ensuing arguments in any way. (Similarly on Page 57, line -11, for the definition of q-symplectic polynomials).

[3] Page 54, Line 4 : The bound on the right-hand side should be

$$g^2 q^{1-\gamma} \log q;$$

this is because on page 66, line -4, we need to ensure that $L > 1$. Note that this additional g^2 does not significantly affect the range of uniformity of the estimate.

[4] Page 54, Line -3 : It is not necessary to defined Q_f to be the set of split primes; unramified primes would do just as well.

[5] Page 58, Line 4 : The right-hand side should be

$$\tilde{\omega}(\ell)(\ell+1)^{-(2g^2+g+1)}$$

because the dimension $\delta(f)$ of the centralizer $C(A_f)$ that occurs in the proof is bounded by the dimension of the group, not the rank. Again, despite appearances, this does not affect the use of this inequality, as explained in [K].

[6] Page 59, Line 2 : The right-hand side should be

$$\frac{|c|}{|\mathfrak{S}_g|}\ell^g\Big(1-\frac{1}{\ell}\Big)^{d_2+\sum d_i}\Big(1-\frac{1}{\sqrt{\ell}}\Big)^{d_1}$$

because inequality (7.2) is wrong for $i = 2$, but must (or can) be replaced with

$$p(2,\ell) \geqslant \frac{1}{2}\ell^2\Big(1-\frac{1}{\ell}\Big)^2 + \frac{g}{2} - 1.$$

[7] Page 61, Line -1 : The right-hand side should be

$$n^3(2N+1)^{n-1/2}(\log N).$$

Similarly on Page 62, line 9, the factor m^2 should be m^3. (Note that the stronger inequalities might well be true!)

References

[K]   E. Kowalski: *The large sieve and its applications*, 221 pages; to appear in Cambridge Tracts in Mathematics.

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