CORRIGENDUM

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In paper [1], which we recently published in this journal, we quote on page 486 a general 'large-sieve' theorem which is Corollary 2 to Theorem 4 of [2]. Professor L. Schoenfeld has pointed out to us that the proof of this theorem contains an error. We have been unable to recover the theorem in its original form; but note [3], in which we draw attention to the error, states and proves a new general result of essentially equal strength (see inequality (3) of [3]). This result, which serves just as well for the purpose of proving the main theorem of [1], is as follows.

For any character χ *to the modulus* q, *let*

$$\tau(\chi) = \sum_{m=1}^{q} \chi(m) e(m/q) \qquad [e(\theta) = e^{2\pi i\theta}],$$

and let the a_n *be any real or complex numbers. Then*

$$(1) \quad \sum_{q \le X} \frac{1}{\phi(q)} \min\left(1, \frac{x}{2Xq}\right) \sum_{\chi} |\tau(\chi)|^2 \left| \sum_{n \le x} \chi(n) a_n \right|^2 < 3 \cdot 2x(\log X) \sum_{n \le x} |a_n|^2,$$

provided X *is greater than some numerical constant.*

As compared with the original result, the right-hand side of (1) contains an extra factor $\log X$ but omits the factor $d(n)$ previously attached to $|a_n|^2$. The proof depends in part on inequality (5) of Gallagher [4].

In some special cases, inequalities sharper than (1) are available. Two such cases, the first implicit in Gallagher [4], are given in [3]; each can be used to obtain a slight improvement of the main theorem of [1] (see [4, Section 4]).

REFERENCES

1. H. Davenport and H. Halberstam, *Primes in arithmetic progression.* Michigan Math. J. 13 (1966), 485-489.
2. ———, *The values of a trigonometrical polynomial at well spaced points.* Mathematika 13 (1966), 91-96.
3. ———, *Corrigendum and addendum.* Mathematika 14 (1967), 229-232.
4. P. X. Gallagher, *The large sieve.* Mathematika 14 (1967), 14-20.

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