CORRIGENDUM TO

“ APOLLONIAN CIRCLE PACKINGS AND PRIME CURVATURES”

By

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The estimate (1.3) has to be modified to

$$(1.3) \quad \#\{(f, f_1, x, y, x_1, y_1) \in \mathcal{F}_a \times \mathcal{F}_a \times [1, M]^4; f(x, y) = f_1(x_1, y_1)\} \\ \ll (RM)^\varepsilon |\mathcal{F}_a| (M^2 + RM).$$

The number of classes of discriminant $-4a^2$ representing $z = f(x, y)$ should indeed be bounded by $2^{\omega(z)} \sum_{z_1|z} (z_1, 4a^2)^{1/2} \ll z^\varepsilon (a, 4a^2)^{1/2}$. Since the number of f_1 's in each class is $O(1)$, the left side of (1.3) is bounded by

$$(RM)^\varepsilon \sum_{d|4a^2} d^{1/2} \sum_{f \in \mathcal{F}_a} \sum_{x, y < M} 1_{\{f(x, y) \equiv 0(d)\}} \\ \ll (RM)^\varepsilon \sum_{d|4a^2} d^{1/2} |\mathcal{F}_a| d^\varepsilon \left(\frac{M^2}{d^{1/2}} + M \right) \ll (RM)^\varepsilon |\mathcal{F}_a| (M^2 + RM).$$

Inequality (1.3) is used only in (5.15), and we obtain an additional term

$$R^\varepsilon B^2 \frac{Q_1^2 Q_2^{5/2}}{RP} \frac{1}{|\mathcal{F}|^2} \frac{P^3}{Q^3} R \sum_{q \sim Q_1} \sum_{a \in \mathcal{A}} (a^2, q) |\mathcal{F}_a| < R^\varepsilon B^2 \frac{P^2}{|\mathcal{F}|} < \frac{P^2}{R^{11/10}}.$$

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