Errata and clarifications for *A relative trace formula for a compact Riemann surface* by K. Martin, M. McKee and E. Wambach, *Intl. J. Num. Thy.*, Vol 7., No. 2 (2011), pp. 389–429.

We would like to thank Roelof Bruggeman, Masao Tsuzuki and James Broda for pointing out several mistakes and points of confusion in our paper, and hope this addresses most of them. Please contact the first author if you spot any others.

(1) p. 396, l. - 6. A priori, the condition is unless $b = c = 0$ or $a = d = 0$. However, in our case there are no elements of Γ with only one of a, b, c, d nonzero.
(2) p. 400, proof of Lemma 1. Interchange x and y.
(3) p. 404, l. -4. The bound on b should be $1 \le |b| < m^2$. Consequently change the $2m^2$ to $2m^4$ in the bound for $\pi_\delta(x)$ on the set-off line above (3.9).
(4) p. 405, center. In the set-off line with two inequalities, the N in the final sum is not the same as in the previous sums.
(5) p. 407, center. In the line after (4.5), $[1/2, 1/2]$ should be $[-1/2, 1/2]$. In (4.7), remove the i's.
(6) p. 417, l. 4. It should read "left-hand side of (4.21)," not (9).
(7) pp. 426–7. Our $S_\Gamma(m, n, \nu)$ is not quite what is denoted ${}^{\delta}_{\xi}S^{\delta'}_{\chi}(m, n, \nu)$ in Good, but essentially off by a factor of 4. Consequently, the asymptotic in Theorem 4 should read

$$\frac{1}{\mathrm{len}(C_1)\mathrm{len}(C_2)} \sum_{\nu \le x} S_\Gamma(m, n, \nu) \sim \frac{\delta_{0,m}\delta_{0,n}}{\pi \mathrm{vol}(X)} x^2 + O(x^s).$$

Further, Corollary 3 should say the following.

Corollary 3. *When $C_1 = C_2$, we have*

$$\pi_\delta(x) \sim \frac{\mathrm{len}(C)^2}{\pi \mathrm{vol}(X)} x.$$

If $C_1 \ne C_2$, we have the asymptotic bound

$$\frac{1}{\delta(\tau)} \frac{\mathrm{len}(C_1)\mathrm{len}(C_2)}{\pi \mathrm{vol}(X)} x \ll \pi_\delta(x) \ll \delta(\tau) \frac{\mathrm{len}(C_1)\mathrm{len}(C_2)}{\pi \mathrm{vol}(X)} x.$$

The square roots should not have been taken for the coefficient of x^2 from line 2 to line 5 of the proof. Accordingly, the asymptotic mentioned on p. 395 of the introduction should also be modified.

In fact, this corollary is contained in Good's Corollary to Theorem 4, where he asserts something stronger, though he does not interpret it in terms of ortholengths.