Correction to:

Constructing Lens Spaces by Surgery on Knots

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Cameron McA. Gordon has pointed out that our Theorem 2(ii) and Theorem 4 are incorrectly stated. We will correct these statements (the proofs are correct) and make some further comments about the knots constructed in the paper.

The statement of Theorem 2(ii) should be omitted.

Theorem 4 should read

Theorem 4. *A Dehn surgery on a nontrivial iterated cable on a nontrivial torus knot yields a nontrivial connected sum of lens spaces if and only if it is a $p(\varepsilon mnp \pm 1)$ -surgery on $C(p, \varepsilon mnp \pm 1; \varepsilon T(m, n))$. The result of this surgery is $L(p, \mp 1) \# L(\varepsilon mnp \pm 1, -pn^2)$.*

The last line of page 45 should read: $L^3 = L(\varepsilon mnp \mp 1, pn^2)$.

The paragraph on page 50 beginning with “Theorem 4 and ...” and ending with “... iterated cable knot.” should be omitted. The correctly stated Theorem 4 shows that $L(5, 4) \# L(31, 17)$ is obtained by a 155-surgery on $C(5, 31; T(3, 2))$. In fact if K is any knot constructed using procedure (a) or (b) so as to yield a nontrivial connected sum of lens spaces, then K is indeed an iterated cable. This, then, leaves open the question of whether there is any knot K which is not an iterated cable and upon which an appropriate surgery on K yields a connected sum of lens spaces.

The knots K_n (n even, $|n| \geq 4$) constructed in Proposition 3 are in fact not cables on any knot. To see this, we showed in the proof that the 2-fold cover of such K_n is a hyperbolic 3-manifold. Hence, by [Gordon and Litherland, Incompressible surfaces in branched coverings, to appear; Cor. 2.1] K_n is a hyperbolic knot; in particular K_n is not a cable on any knot.

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