Correction to: Kauffman type invariants for tied links

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In the original publication, there are missing symbols in Theorem 1 and two missing lines in Theorem 3 (cf. <https://arxiv.org/pdf/1607.04841v5.pdf>). Here the corrected statements:

Theorem 1 *There exists a unique function*

$$\mathcal{L} : \{\text{Unoriented tied links diagrams}\} \rightarrow \mathbb{Z}[a^{\pm 1}, z^{\pm 1}, x^{-1}]$$

that is defined by the following rules:

- (i) $\mathcal{L}(\bigcirc) = 1$,
- (ii) $\mathcal{L}(D \sqcup \bigcirc) = x^{-1} \mathcal{L}(D)$,
- (iii) $\mathcal{L}$ is invariant under Reidemeister moves II and III,
- (iv) $\mathcal{L}(\text{positive twist}) = a \mathcal{L}(\text{negative twist})$,
- (v) $\mathcal{L}(\text{negative twist}) = a^{-1} \mathcal{L}(\text{positive twist})$,
- (vi) $\mathcal{L}(\text{crossing}) + \mathcal{L}(\text{crossing}) = z \left(\mathcal{L}(\text{positive crossing}) + \mathcal{L}(\text{negative crossing}) \right)$,

where, as usual, $\mathcal{L}(\text{crossing})$, $\mathcal{L}(\text{crossing})$, etc., indicate the value of $\mathcal{L}$ on diagrams that are identical except for a disc inside which they look like the pictures in parentheses.

Theorem 3 *There exists a unique function*

$$\langle \langle \rangle \rangle : \{\text{Unoriented tied links diagrams}\} \rightarrow \mathbb{Z}[A^{\pm 1}, c]$$

The original article can be found online at <https://doi.org/10.1007/s00209-017-1966-0>.

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defined by the following rules:

- (i) $\langle\langle \bigcirc \rangle\rangle = 1$,
- (ii) $\langle\langle \bigcirc \sqcup D \rangle\rangle = c \langle\langle D \rangle\rangle$,
- (iii) $\langle\langle \bigcirc \widetilde{\sqcup} D \rangle\rangle = -(A^2 + A^{-2}) \langle\langle D \rangle\rangle$,
- (iv) $\langle\langle \rangle\rangle$ is invariant under Reidemeister moves II and III,
- (v) $\langle\langle \text{\textcircled{X}} \rangle\rangle = A \langle\langle \text{\textcircled{>}} \rangle\rangle + A^{-1} \langle\langle \text{\textcircled{<}} \rangle\rangle$,
- (vi) $\langle\langle \times \rangle\rangle + \langle\langle \succ \rangle\rangle = (A + A^{-1}) \left(\langle\langle \text{\textcircled{>}} \rangle\rangle + \langle\langle \text{\textcircled{<}} \rangle\rangle \right)$.

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