

Erratum: “Knotted Periodic Orbits in Dynamical Systems-I: Lorenz’s Equations”
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Twenty-three years after the publication of the article of the title it has come to our attention that there is a very small but particularly confusing typo or mistake (we cannot say which) in part (a) of Proposition 5.6, page 63. Since (i) we had to work to recall the proof and identify the mistake, and (ii) a correct version of Proposition 4.6 is essential for anyone who is interested in the still-open problem of characterizing Lorenz links, it seemed best to submit an Erratum, even at this late date.

The final exponent in the formula in part (a) should have been m_{t-i} , not m_i as written. The correct formula is thus:

$$\Delta^2 \prod_{i=1}^{t-1} (\sigma_1 \sigma_2 \cdots \sigma_i)^{n_i} \prod_{i=t-1}^1 (\sigma_{t-1} \sigma_{t-2} \cdots \sigma_i)^{m_{t-i}},$$

or, writing out the double product for added clarity:

$$\Delta^2 (\sigma_1)^{n_1} (\sigma_1 \sigma_2)^{n_2} \cdots (\sigma_1 \sigma_2 \cdots \sigma_{t-1})^{n_{t-1}} (\sigma_{t-1})^{m_1} (\sigma_{t-1} \sigma_{t-2})^{m_2} \cdots (\sigma_{t-1} \sigma_{t-2} \cdots \sigma_1)^{m_{t-1}}$$

The reason is: when working with the contributions to the braid word from the letter x , the first generator to occur in the formula is σ_1 and the last is σ_{t-1} , but when working with the contributions from the letter y , the first generator to occur is σ_{t-1} and the last is σ_1 . In our proof of (a), on page 64, lines 11-13, we noted that the arcs of RR are naturally ordered from right to left, but failed to take full account of the consequences.

There was also a typo in the formula on line 2 of page 64, in the proof of Proposition 5.6, where

$$\sigma_1 \sigma_2 \cdots \sigma_i \text{ should be replaced by } \sigma_1 \sigma_2 \cdots \sigma_{i-1}.$$

That typo did not result in an error in the statement of Proposition 5.6.