

CONVENTION CORRECTIONS TO: BORDERED FLOER HOMOLOGY AND THE SPECTRAL SEQUENCE OF A BRANCHED DOUBLE COVER II: THE SPECTRAL SEQUENCES AGREE

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ABSTRACT. We give corrected orientation conventions for Section 6 of [LOT16].

The orientations in Section 6 of [LOT16] are inconsistent, and the main convention, in Figure 12, is inconsistent with the convention for positive and negative crossings in Figure 1. This note has corrected versions of Figures 12, 13, 16, 17, 18, and 19. (In fact, Figure 13 was correct in the original version.) From these, correcting the text is straightforward.

One way to figure out the correct orientations is to note that there are exact triangles

$$\begin{array}{ccc}
 & \widehat{CFDA}(\sigma_i^{-1}) & \\
 \nearrow & & \searrow \\
 \widehat{CFDA}(\check{\sigma}_i) & \xleftarrow{F^-} & \widehat{CFDA}(\mathbb{I})
 \end{array}
 \qquad
 \begin{array}{ccc}
 & \widehat{CFDA}(\sigma_i) & \\
 \nearrow & & \searrow \\
 \widehat{CFDA}(\mathbb{I}) & \xleftarrow{F^+} & \widehat{CFDA}(\check{\sigma}_i)
 \end{array}
 .$$

For each of these maps, there should be a small triangle, provincial (not touching the boundary) holomorphic triangle in the corresponding Heegaard triple diagram. That is not the case for Figure 12 as it appears in [LOT16].

Here are the corrected figures:

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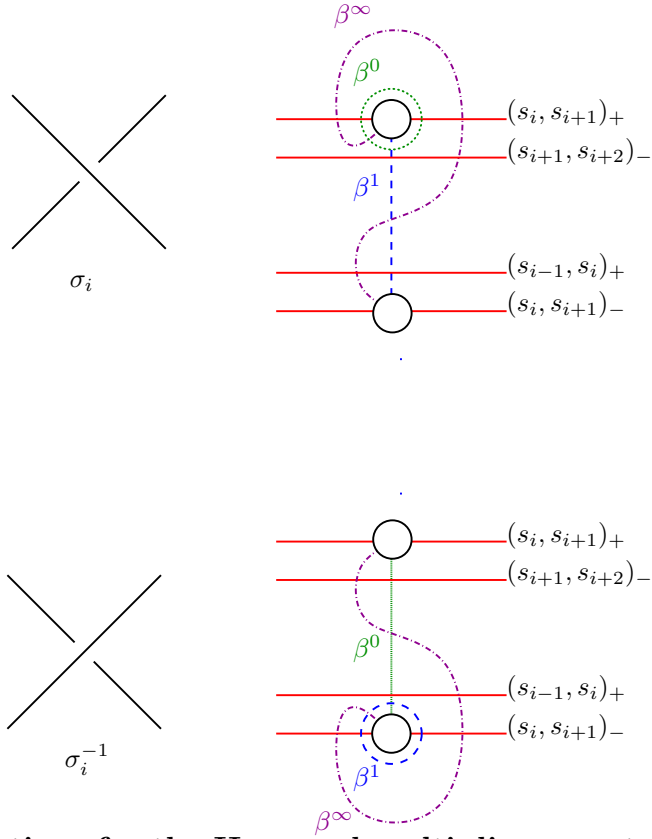


FIGURE 12. **Modifications for the Heegaard multi-diagram at each crossing.** The two types of braid generator are illustrated in the left column. This corresponds to a modification of the Heegaard multi-diagram as illustrated on the right.

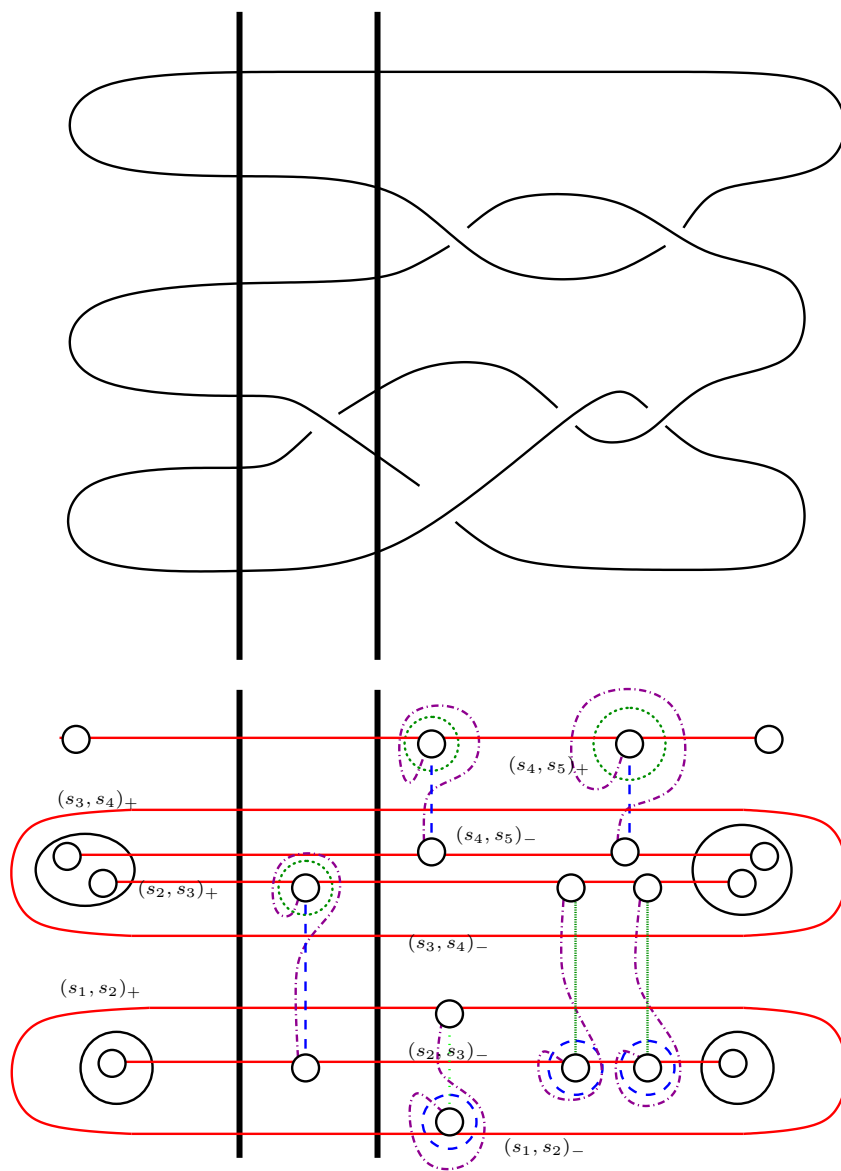


FIGURE 13. **Heegaard multi-diagram for a branched double cover.** Start from the knot projection above, and build the diagram below. We have distinguished a vertical slice of the knot diagram containing a single crossing. The corresponding vertical slice of the Heegaard multi-diagram, after suitable stabilizations, is a bordered multi-diagram for a Dehn twist.

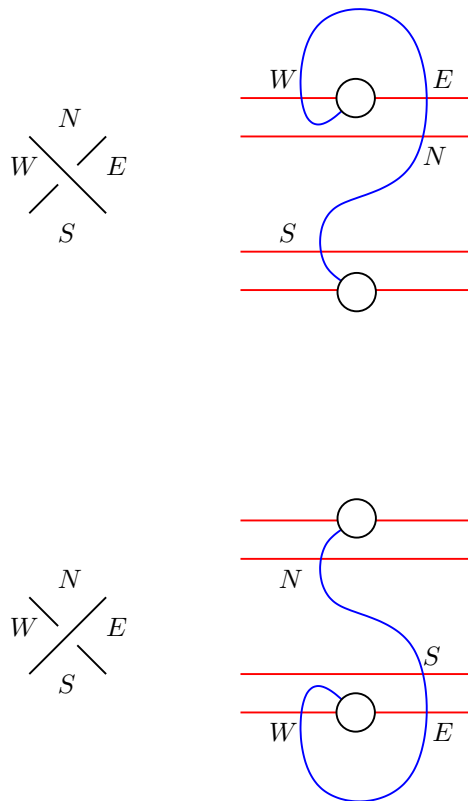


FIGURE 16. **Local correspondence between Kauffman states and Heegaard Floer generators.**

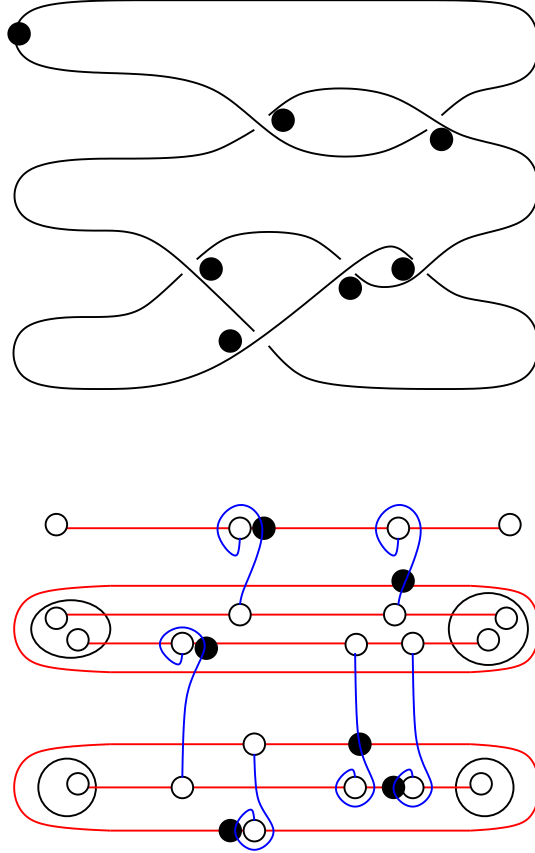


FIGURE 17. A knot, a Kauffman state, the branched double cover Heegaard multi-diagram, and corresponding Heegaard Floer generator. For the Kauffman state indicated above, we have drawn components of the corresponding Heegaard Floer generator. The Heegaard Floer generator has more components which are not indicated; but those are all uniquely determined.

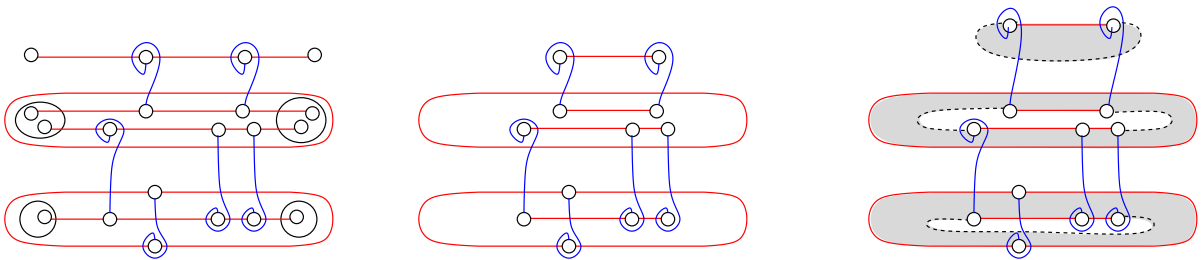


FIGURE 18. Modifications to the small standard diagram to get Greene's diagram. Passing from the first to the second picture is a sequence of destabilizations at the cup and cap regions. The third picture is equipped with the curve γ (drawn dashed), and the region T' is shaded.

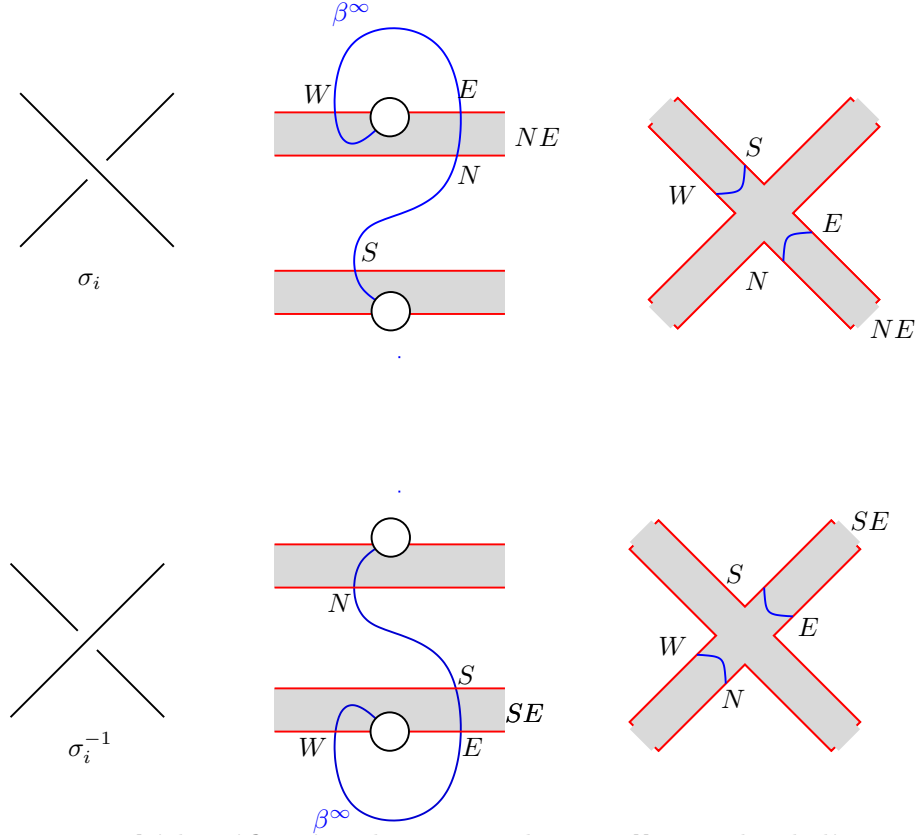


FIGURE 19. **Local identification between the small standard diagram and Greene's diagram.** At the left is a crossing; in the middle the corresponding portion of the standard diagram (with shaded T'), and at right the corresponding portion of Greene's diagram (with T shaded).

Acknowledgments. We thank Jesse Cohen for pointing out these mistakes.

REFERENCES

- [LOT16] Robert Lipshitz, Peter S. Ozsváth, and Dylan P. Thurston, *Bordered Floer homology and the spectral sequence of a branched double cover II: the spectral sequences agree*, J. Topol. **9** (2016), no. 2, 607–686, arXiv:1404.2894.

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