

Errata to “Convergence of Sewing Conformal Blocks”

Bin Gui

April 1, 2025

1. In Thm 6.3, one should add the extra assumption that \mathfrak{X} admits local coordinates η_\bullet . This condition ensures that $\mathscr{W}_{\mathfrak{X}}(\mathbb{W}_\bullet) \simeq \mathbb{W}_\bullet \otimes \mathcal{O}_{\mathcal{B}}$, and hence each stalk of $\mathscr{W}_{\mathfrak{X}}(\mathbb{W}_\bullet)$ is generated by the global sections of $\mathscr{W}_{\mathfrak{X}}(\mathbb{W}_\bullet)$.
2. In Rem. 10.3, it is not correct to say that $(\mathbb{M} \otimes \mathbb{M}' \otimes R)((\xi))[\log q]\{q\}$ is an $R((\xi))[\log q]\{q\}$ -module. (Not every two elements of $\mathbb{C}\{q\}$ can be multiplied.) The correct way to say this as follows. First, for each vector space W , we define $W\{q\}$ to be the set of formal series $\sum_{n \in \mathbb{C}} w_n q^n$ where $w_n \in W$ and $w_n = 0$ when $\Re(n) < 0$. (This lower truncation property was originally not assumed in the paper, but it is sufficient for the purpose of the paper.) Then $(\mathbb{M} \otimes \mathbb{M}' \otimes R)((\xi))[\log q]\{q\}$ is an $R((\xi))[\log q][[q]]$ -module. Thus, its elements can be multiplied by $f(\xi, q/\xi) \in R((\xi))[[q]]$.
3. In Prop. 11.3, since $\mathcal{S}\phi$ is a multivalued section, it is not an element of $\mathscr{T}_{\mathfrak{X}_{\mathcal{B}^\times}}^*(\mathbb{W}_\bullet)(\mathcal{B}^\times)$. (Recall that $\mathcal{B}^\times = \mathcal{D}_{r\rho}^\times \times \tilde{\mathcal{B}}$.) Instead, it should be an element of $\mathscr{T}_{\mathfrak{X}_{\mathcal{B}^\times}}^*(\mathbb{W}_\bullet)(\hat{\mathcal{D}}_{r\rho}^\times \times \tilde{\mathcal{B}})$ where $\hat{\mathcal{D}}_{r\rho}^\times$ is the universal cover of $\mathcal{D}_{r\rho}^\times$.
4. In Prop. 11.12, a factor $\frac{1}{2i\pi}$ is missing in the contour integrals defining A and B . The same can be said about Eq. (13.8).