Errata for "The stable embedding tower and operadic structures on configuration spaces" [1]

Connor Malin

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1. Definition 5.4: The operad S_n in $(\mathrm{dgVect}_k, \otimes)$ is the endomorphism operad $\mathrm{End}(k[-n])$. Denoting standard isomorphisms by $\cong$, we have

$$\mathrm{End}(k[-n])(I) := \mathrm{Hom}(k[-n]^{\otimes I}, k[-n]) \cong \mathrm{Hom}(k[-n|I|], k[-n]) \cong k[n|I| - n].$$

   The isomorphism associated to the partial composite of $I \cup_a J$

$$k[n|I + J - 1| - n] \cong k[(n|I| - n)] \otimes k[(n|J| - n)] \to k[(n|I + J - 1| - n)]$$

   is either the identity or negation, and we define $\omega(n, I \cup_a J)$ to be the sign of this isomorphism.

2. In Definition 5.2, the behavior of the partial decomposites on the fundamental classes should be

$$\alpha_{I \cup_a J} \mapsto \omega(n, I \cup_a J)(\alpha_I \otimes \alpha_J).$$

3. In Definition 7.1, the behavior of the partial decomposites on the fundamental classes should be

$$\beta_{I \cup_a J} \mapsto \omega(n, I \cup_a J)(\beta_I \otimes \alpha_J).$$

4. Definition 7.3: The right module $S_{(n,d)}$ over S_n is $S_n[d]$ where $[d]$ denotes the level-wise d-fold shift of S_n.

References

[1] Connor Malin. The stable embedding tower and operadic structures on configuration spaces. *Homology, Homotopy and Applications*, 26(1):229–258, 2024.