

Erratum to: “Graphical functions in even dimensions” in Communications in Number Theory and Physics Volume 16 (2022) Number 3 pp. 515-614

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All main results of the article remain valid. The present erratum addresses subtle inaccuracies in certain statements that do not affect the conclusions.

1. In the last line of Proposition 11, change “...for all $\mathcal{V} \subset \mathcal{V}_G$ with $|\mathcal{V}^{\text{int}}| \geq 1$ internal and ...” to “...for all $\mathcal{V} \subset \mathcal{V}_G$ with $|\mathcal{V}| \geq 2$ and ...”
2. In the proof of Proposition 53, remove the last two paragraphs that start with “Like in the proof of Proposition ...” and “We use this technique ...” Replace them with the following:

For $i \in \{a, b, c, d\}$, let

$$N_i = \sum_{i \sim e \in \mathcal{E}_{\overline{G}_1}} \nu_e$$

be the sum of the weights of the edges in \overline{G}_1 attached to i . Because both \overline{G} and \overline{G}' are internally completed, we have $N_a = N_b$ and $N_c = N_d$. It is proved in Corollary 9 of [3] that the four-point function $A_{\overline{G}_1}(a, b, c, d) = A_{\overline{G}_1}(b, a, d, c)$ is invariant under the twist. Integration over a, b, c, d (if internal) gives (61).

3. In Example 62:
 - (a) First sentence: change “...vertex i ...” to “...vertex x_1 (say) ...”
 - (b) Second sentence: change “...vertex 0 connects to a single internal vertex” to “...vertex 0 only connects to x_2 .”
 - (c) Replace the sentence starting with “The case $k = \lambda, \dots$ ” with the sentence “The case $\nu_1 = 0$ in (71) is singular.”
 - (d) Change the label $\frac{m}{\varepsilon}$ on the top-right edge of the third graph in equation (72) to the label $\frac{m}{\lambda_\varepsilon}$.
 - (e) Before “All graphical functions ...” add the sentence “It is shown in [1] that one can append edges of weights $(k - \varepsilon)/\lambda_\varepsilon$, $\lambda \geq k \in \mathbb{Z}$ ”

in dimensionally regularized graphical functions.” Below, remove the similar sentence starting with “*It is shown in ...*”

- (f) Change “... edge between 0 and i ...” to “... edge between 0 and x_1 ...”
4. The URL for the HyperlogProcedures package listed in the references no longer works. An updated version is available on GitHub [2].

References

- [1] O. Schnetz, ϕ^4 theory at seven loops, *Phys. Rev. D* **107** (2023) 036002 [[2212.03663](#)].
- [2] O. Schnetz, “HyperlogProcedures.” <https://github.com/oliverschnetz/HyperlogProcedures>, 2025.
- [3] O. Schnetz, *The five-twist identity for Feynman periods*, *Commun. Number Theory and Physics* **20** (2026) 171 [[2505.02578](#)].

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