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Erratum: new numerical results and novel effective string predictions for Wilson loops

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Abstract: We correct a few misprints present in the published version, regarding eq.s (4.30), (4.35), (A.4) and (A.6). Plots and results of the paper are not affected since they were derived from the correct formulae.

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The published version of this paper unfortunately contains some misprints in four displayed equations, of which we list below the correct form. We remark that plots and overall results of the paper are not affected by these misprints since they were derived from the correct formulae.

Eq. (4.30) must be replaced by the following one:

$$\begin{aligned}\mathcal{W}(\mathcal{A},u) = \sqrt{2\pi\sigma}|\mathcal{N}|^2 \left(\frac{2}{u}\right)^{\frac{\alpha}{4}} \sqrt{\frac{\pi}{2\sigma\mathcal{A}}}\mathrm{e}^{-\sigma\mathcal{A}}\sum_k c_k \mathrm{e}^{-2\pi u\hat{k}} \\ \times\left\{1+\frac{1}{\sigma\mathcal{A}}\left[\frac{\alpha^2-4}{32}+\frac{\alpha-2}{2}\pi u\hat{k}+2\pi^2u^2\hat{k}^2\right]\right. \\ +\frac{1}{(\sigma\mathcal{A})^2}\left[\frac{\alpha^4-40\alpha^2+144}{2048}+\frac{\alpha^3-6\alpha^2-4\alpha+24}{64}\pi u\hat{k}\right. \\ \left.\left.+\frac{3}{16}(\alpha^2-8\alpha+12)\pi^2u^2\hat{k}^2+(\alpha-6)\pi^3u^3\hat{k}^3+2\pi^4u^4\hat{k}^4\right]+O\left(\frac{1}{(\sigma\mathcal{A})^3}\right)\right\}\end{aligned} \tag{4.30}$$

Eq. (4.35) must be replaced with

$$\begin{aligned}\hat{\mathcal{L}}_3(u) = \left(\frac{\pi}{24}\right)^4\Big[6(D+24)Du^4E_4^2(\mathrm{i}u)-3D(D-8)(D-12)u^2E_4(\mathrm{i}u)E_2(\mathrm{i}u)E_2(\mathrm{i}/u) \\ +\frac{D(D-4)(D-8)(D-12)}{8}E_2^2(\mathrm{i}u)E_2^2(\mathrm{i}/u)\Big] \\ -\left(\frac{\pi}{24}\right)^3 4D(D-12)u^3E_6(\mathrm{i}u)\left(1-\frac{\pi}{3}uE_2(\mathrm{i}u)\right) \\ +\left(\frac{\pi}{24}\right)^2\Big[\frac{3}{64}D(D-4)(D-12)u^2E_4(\mathrm{i}u) \\ -\frac{(D+4)D(D-4)(D-12)}{256}E_2(\mathrm{i}u)E_2(\mathrm{i}/u)\Big]+\frac{(D+12)(D+4)(D-4)(D-12)}{32768}\,.\end{aligned} \tag{4.35}$$

Eq. (A.4) becomes

$$E_{2k}(\tau) = 1+\frac{2}{\zeta(1-2k)}\sum_{n=1}^{\infty}\sigma_{2k-1}(n)\,q^n\,, \tag{A.4}$$

Finally, eq. (A.6) should become

$$\begin{aligned}E_2(\tau) &= 1-24\sum_{n=1}^{\infty}\sigma_1(n)\,q^n\,, \\ E_4(\tau) &= 1+240\sum_{n=1}^{\infty}\sigma_3(n)\,q^n\,, \\ E_6(\tau) &= 1-504\sum_{n=1}^{\infty}\sigma_5(n)\,q^n\,.\end{aligned} \tag{A.6}$$

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