Erratum: Pseudofermion method for the exact description of fermionic environments: From single-molecule electronics to the Kondo resonance [Phys. Rev. Research 5, 033011 (2023)]

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We note the presence of a typographical error in Eq. (23) in the main text and in Eq. (B46) in Appendix B, which should read as follows:

$$\begin{aligned} n_{\rm res} &= 1/2, & n_{k,\pm} &= \Delta, \\ \lambda_{\rm res} &= \sqrt{\Gamma W}, & \lambda_{k,\pm} &= \sqrt{\pm M_k/\Delta}, \\ \Omega_{\rm res} &= \mu, & \Omega_{k,\pm} &= \mu \pm i(x_k - W)/2, \\ \Gamma_{\rm res} &= W, & \Gamma_{k,\pm} &= (W + x_k)/2. \end{aligned} \tag{1}$$

This correction leads to the following revision for Eq. (B47) as

$$C^{\sigma}_{{\rm pf},(k,r)}(t) = \frac{rM_k}{\Delta}[(1-\sigma)/2 + \sigma\Delta]\exp\{-(W+x_k)|t|/2\}\exp\{i\sigma[\mu + ir(x_k - W)/2]t\}, \tag{2}$$

and for Eq. (B48) as

$$\begin{aligned} M^{\sigma}_k(t) &= \frac{M_k}{\Delta}\exp\{-(W+x_k)|t|/2\}[(1-\sigma)/2+\sigma\Delta](\exp\{i\sigma[\mu + i(x_k-W)/2]t\} - \exp\{i\sigma[\mu - i(x_k-W)/2]t\}) \\ &= \frac{M_k}{\Delta}\exp\{-(W+x_k)|t|/2\}[(1-\sigma)/2+\sigma\Delta]e^{i\sigma\mu t}(\exp\{-\sigma[(x_k-W)/2]t\} - \exp\{+\sigma[(x_k-W)/2]t\}) \\ &= \frac{M_k}{\Delta}\exp\{-(W+x_k)|t|/2\}[(1-\sigma)/2+\sigma\Delta]\sigma e^{i\sigma\mu t}(\exp\{-[(x_k-W)/2]t\} - \exp\{+[(x_k-W)/2]t\}) \\ &\to M_k\exp\{-(W+x_k)|t|/2\}\exp\{i\sigma\mu t\}(\exp\{[(W-x_k)/2]t\} - \exp\{-[(W-x_k)/2]t\}). \end{aligned} \tag{3}$$

A similar typographic error is also present in Eq. (24) in the main text and Eq. (B50) in Appendix B, which should read

$$\begin{aligned} n_{k,r,\sigma'} &= (1+\sigma')/2, \\ \lambda_{k,r,\sigma'} &= \sqrt{rM_k}, \\ \Omega_{k,r,\sigma'} &= \mu + ir\sigma'(x_k - W)/2, \\ \Gamma_{k,r,\sigma'} &= (W + x_k)/2. \end{aligned} \tag{4}$$

This correction leads to the following revision for Eq. (B51) as

$$C^{\sigma}_{{\rm pf},(k,r,\sigma')}(t) = rM_k\exp\{-(W+x_k)|t|/2\}\left[\frac{1-\sigma}{2} + \sigma\frac{1+\sigma'}{2}\right]\exp\{i\sigma[\mu + ir\sigma'(x_k-W)/2]t\}, \tag{5}$$

and for Eq. (B52) as

$$\begin{aligned} M^{\sigma}_k(t) &= \sum_{\sigma'} M_k\exp\{-(W+x_k)|t|/2\}\left[\frac{1-\sigma}{2} + \sigma\frac{1+\sigma'}{2}\right]\left(e^{i\sigma[\mu + i\sigma'(x_k-W)/2]t} - e^{i\sigma[\mu - i\sigma'(x_k-W)/2]t}\right) \\ &= \sum_{\sigma'} M_k\exp\{-(W+x_k)|t|/2\}\delta_{\sigma\sigma'}\exp\{i\sigma\mu t\}\left(\exp\{-\sigma\sigma'(x_k-W)t/2\} - \exp\{+\sigma\sigma'(x_k-W)t/2\}\right) \\ &= M_k\exp\{-(W+x_k)|t|/2\}\exp\{i\sigma\mu t\}(\exp\{(W-x_k)t/2\} - \exp\{-(W-x_k)t/2\}). \end{aligned} \tag{6}$$

These revisions are consistent with the other results and derivations in the article, and with the numerical simulations, which employed the correct definitions. Thus, none of the numerical results presented are affected by the typos listed above.