
In Eq. (A5), two coefficients were misprinted, this equation should read as replaced by

\[
I = \left( (\alpha_1^2 + \alpha_2^2)(k-1)r^{k-1}v_1v_2 + (\alpha_1^2 - \alpha_2^2)r^k(v_1v'_2 - v'_1v_2) + 2(k-1)r^{k-1}v'_1v'_2 \\
- (\nu_1^2 - \nu_2^2 - (k-1)^2)r^{k-2}v'_1v_2 - (\nu_2^2 - \nu_1^2 - (k-1)^2)r^{k-2}v'_2v_1 \right)_a^b \\
+ \left( (\nu_1^2 - \nu_2^2 - (k-1)^2)(k-3) - 2(k-1)\nu_2^2 \right)_a^b \int dr r^{k-3}v'_2v_1 \\
+ \left( (\nu_2^2 - \nu_1^2 - (k-1)^2)(k-3) - 2(k-1)\nu_1^2 \right)_a^b \int dr r^{k-3}v'_1v_2 \\
- 4(k-1)(k-2) \int_a^b dr r^{k-2}v'_1v'_2 + \left[ (\nu_1^2 - \nu_2^2)^2 - (k-1)^2(\nu_1^2 + \nu_2^2) \right]_a^b \int dr r^{k-4}v_1v_2.
\]

This misprint does not affect other formulas in the paper.