Retrieving the three-dimensional matter power spectrum and galaxy biasing parameters from lensing tomography (Corrigendum)

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ABSTRACT

We report a missing factor, \( a(\chi) \), in the \( \xi_+ \)-related integrands of Simon (2012). This typographical error in the Equations (11), (16), and (17) has no impact on our results and conclusions; the correct integrands were used in the original analysis.

Key words. Erratum

1. Correction

A detailed list of the three typographical errors follows. First, the integral for the shear-shear correlations in Equation (11) should have the factor \( a^2(\chi) \) in the denominator of the integrand (instead of just \( a(\chi) \)),

\[
\xi_+^{(i,j)}(\theta) = \frac{9H_0^2\Omega_m^2}{4c^4} \int_0^{\infty} \int_0^{\infty} \frac{d\nu \ell \ell}{2\pi} \frac{W^{(i)}(\chi)\bar{W}^{(j)}(\chi)}{a^2(\chi)} J_{0,4}(\ell \theta) J_{0,4}(k_0 s) P_{\delta} \left( \frac{\ell \theta}{f(k) s} \right). 
\]

Second, the integral for the basis functions in Equation (16) should also have the factor \( a^2(\chi) \),

\[
X_+^{(i,j)}(\theta; m, n) := \frac{9H_0^2\Omega_m^2}{8\pi c^4 \theta^2} \times \int_0^{\infty} d\chi \frac{W^{(i)}(\chi)\bar{W}^{(j)}(\chi)}{a^2(\chi)} \int_{k_0 s}^{k_0 s + k_{\delta}} ds s J_{0,4}(s) P_{\delta}(s) \left( \frac{s}{f_k(s) \theta} \right). 
\]

Third, the integral in Equation (17) must have the factor \( a^2(\chi) \),

\[
\xi_{+,\delta}^{(i,j)}(\theta) = \frac{9H_0^2\Omega_m^2}{8\pi c^4 \theta^2} \times \int_0^{\infty} d\chi \frac{W^{(i)}(\chi)\bar{W}^{(j)}(\chi)}{a^2(\chi)} \int_0^{\infty} ds s J_{0,4}(s) P_{\delta}(s) \left( \frac{s}{f_k(s) \theta} \right). 
\]

All three of the correct equations shown here were used in our original analysis. Therefore, the corrections have no impact on our results and conclusions in Simon (2012).

References