

Erratum

Shapiro and Ritzwoller, 2004. Thermodynamic constraints on seismic inversions (*Geophys. J. Int.*, **157**, 1175-1188).

There are some typographical errors in equations in Appendix A. For clarity, the corrected equations are presented here.

$$\mu(P, T, X) = \mu_0 + (T - T_0) \frac{\partial \mu}{\partial T} + (P - P_0) \frac{\partial \mu}{\partial P} + X \frac{\partial \mu}{\partial X} \quad (1)$$

$$K(P, T, X) = K_0 + (T - T_0) \frac{\partial K}{\partial T} + (P - P_0) \frac{\partial K}{\partial P} + X \frac{\partial K}{\partial X} \quad (2)$$

$$\rho(P, T, X) = \rho_0(X) \left[1 - \alpha(T - T_0) + \frac{(P - P_0)}{K} \right] \quad (3)$$

$$\rho_0(X) = \rho_0|_{X=0} + X \frac{\partial \rho}{\partial X} \quad (4)$$

$$\alpha(T) = \alpha_0 + \alpha_1 T + \alpha_2 T^{-1} + \alpha_3 T^{-2} \quad (5)$$

$$\rho_0|_{X=0}, \mu_0, K_0, \frac{\partial \rho}{\partial X}, \frac{\partial \mu}{\partial X}, \frac{\partial K}{\partial X}, \frac{\partial \rho}{\partial T}, \frac{\partial \mu}{\partial T}, \frac{\partial K}{\partial T}, \frac{\partial \rho}{\partial P}, \frac{\partial \mu}{\partial P}, \frac{\partial K}{\partial P}, \alpha_0, \alpha_1, \alpha_2, \alpha_3 \quad (6)$$

$$\langle \rho \rangle = \sum \lambda_i \rho_i \quad (7)$$

$$\langle \mu \rangle = \frac{1}{2} \left[\sum \lambda_i \mu_i + \left(\sum \frac{\lambda_i}{\mu_i} \right)^{-1} \right] \quad (8)$$

$$\langle K \rangle = \frac{1}{2} \left[\sum \lambda_i K_i + \left(\sum \frac{\lambda_i}{K_i} \right)^{-1} \right] \quad (9)$$

With the following standard relations

$$v_p = \sqrt{\left(K + \frac{4}{3} \mu \right) / \rho} \quad v_s = \sqrt{\mu / \rho} \quad (10)$$

$$Q_\mu(P, T, \omega) = A \omega^a \exp(a(H^* + PV^*) / RT) \quad (11)$$

$$Q_P = \frac{3}{4} \frac{v_p^2}{v_s^2} Q_\mu \quad (12)$$

$$v_{anel}(P, T, \omega) = v(P, T, \omega) \left[1 - \frac{Q^{-1}(P, T, \omega)}{2 \tan(\pi a / 2)} \right] \quad (13)$$