

RAY M. BOWEN & C.-C. WANG

Corrigendum:
Acceleration Waves
in Inhomogeneous Isotropic Elastic Bodies

Vol. 38, pp. 13-45 (1970)

Using a method of proof basically similar to ours, Professors P. CHADWICK and R. W. OGDEN have calculated independently the principal components of the first and second derivatives of a mapping of the space of real symmetric tensors into itself in which principal axes are preserved. They noticed that our formula (3.56) for the case $H\langle ijkkki \rangle$, i, j, k, \neq , is not correct. If appropriate values of Ω_{ki} are substituted into our equation (3.51), we should get

$$H\langle 122331 \rangle = \frac{1}{8} \frac{1}{(b_2 - b_3)(b_3 - b_1)} \left[\frac{t_1 - t_2}{b_1 - b_2} (2b_3 - b_1 - b_2) - (2t_3 - t_1 - t_2) \right] \neq 0.$$

In general, the result is

$$H\langle ijkkki \rangle = \frac{1}{8} \frac{1}{(b_j - b_k)(b_k - b_i)} \left[\frac{t_i - t_j}{b_i - b_j} (2b_k - b_i - b_j) - (2t_k - t_i - t_j) \right],$$

which can be expressed also in the form¹

$$H\langle ijkkki \rangle = \frac{1}{4} \left[\frac{t_i}{(b_i - b_j)(b_i - b_k)} + \frac{t_j}{(b_j - b_i)(b_j - b_k)} + \frac{t_k}{(b_k - b_i)(b_k - b_j)} \right].$$

Limiting cases can be derived when b_i, b_j, b_k become equal in various ways. Since these particular principal components do not enter into the calculation of the principal waves, this correction does not affect any other formula in our paper.

¹ This more symmetrical form was revealed to us in a private communication from Professor CHADWICK.

Department of Mathematical Sciences
Rice University
Houston, Texas

(Received January 14, 1971)