

CORRIGENDA

Yue-Sheng Wang and Duo Wang, Scattering of elastic waves by a rigid cylindrical inclusion partially debonded from its surrounding matrix—I. SH case. *Int. J. Solids Structures*, Vol. 33, No. 19, pp. 2789–2815, 1996.

Yue-Sheng Wang and Duo Wang, Scattering of elastic waves by a rigid cylindrical inclusion partially debonded from its surrounding matrix—II. P and SV cases. *Int. J. Solids Structures*, Vol. 33, No. 19, pp. 2816–2840, 1996.

In Part I of the above referenced series paper, eqn (56) is incorrect when $n > 1$. It follows from the book by Muskhelishvili (1953) that the general solution of eqn (55) should be

$$\phi_k(\theta) = \frac{i\tau_0}{\mu_0} \frac{X(\theta)}{\pi i} \sum_{l=1}^n \int_{a_l}^{b_l} \cos(\zeta - \theta_0) X^{-1}(\zeta) \left[\cot\left(\frac{\zeta - \theta}{2}\right) - \tan\frac{\theta}{2} \right] d\zeta + X(\theta) P_{n-1}\left(\tan\frac{\theta}{2}\right)$$

where $X(\theta)$ is given by eqn (57) and $P_{n-1}(\cdot)$ is a polynomial of order $n-1$ in terms of $\tan(\theta/2)$. The unknown coefficients of $P_{n-1}(\cdot)$ may be determined by the single-valued condition (31). For the case of $n = 1$, $P_{n-1}(\cdot)$ is a constant P_0 . Using eqn (31), one may have $P_0 = 0$, and then arrive at eqn (56). That is to say, eqn (56) is correct only when $n = 1$. Since only the case of one debond was considered in detail in that paper, no errors are included in other equations.

It is also noted that, in Part II, the footnote indicating the change of author's address should be marked on the first author, Yue-Sheng Wang.

REFERENCES

Muskhelishvili, N. I. (1953). *Singular Integral Equations*. Noordhoff, Leyden.

T. R. Nordenholz and O. M. O'Reilly, On steady motions of an elastic rod with application to contact problems. *Int. J. Solids Structures*, Vol. 34, No. 9, pp. 1123–1143, 1997.

The purpose of this corrigendum is to correct some statements concerning the invariance requirements for constrained theories that we assumed in our paper. These corrections do not apply when dealing with an unconstrained theory. In our paper, it was assumed that \mathbf{n} , \mathbf{m}^z and \mathbf{k}^z were objective [cf. eqn (12)]. This leads to the conclusions that the indeterminate functions p_s are invariant under superposed rigid body motions, and that $\dot{\gamma}$, \mathbf{F} , \mathbf{M} and \mathbf{L}^z are objective [cf. eqns (13) and (14)].

As usual, it is assumed that the forces \mathbf{n} , \mathbf{m}^z and \mathbf{k}^z can be additively decomposed:

$$\mathbf{n} = \hat{\mathbf{n}} + \bar{\mathbf{n}}, \quad \mathbf{k}^z = \hat{\mathbf{k}}^z + \bar{\mathbf{k}}^z, \quad \mathbf{m}^z = \hat{\mathbf{m}}^z + \bar{\mathbf{m}}^z, \quad (\text{C.1})$$

where the overbar and the hat denote the constraint and determinate responses, respectively. Then, following Casey and Carroll (1996), and O'Reilly and Turcotte (1996), the correct invariance requirements are to assume that only $\hat{\mathbf{n}}$, $\hat{\mathbf{k}}^z$ and $\hat{\mathbf{m}}^z$ are objective: