Math. Proc. Camb. Phil. Soc. (1987), **101**, 383
Printed in Great Britain

Corrigenda

Volume 97 (1985), 357–379 and 541–549

'Asymptotic shapes of inflated noncircular elastic rings'

and

'Asymptotic shapes of inflated spheroidal nonlinearly elastic shells'

BY STUART S. ANTMAN

Department of Mathematics, University of Maryland, College Park, MD 20742, *USA*

AND M. CARME CALDERER

Department of Mathematics, University of Delaware, Newark, DE 19717, *USA*

(*Received* 12 *August* 1986)

Formulae (2·12) of both papers, giving an expression for the curvature $\bar{\kappa}$, are wrong. To correct them, let $\omega(s)$ be the angle between $\bar{\mathbf{r}}' = \bar{\nu}\mathbf{a} + \eta\mathbf{b}$ and $\mathbf{i}$. Then

$$\tan \omega = \frac{\bar{\nu} \sin\theta + \eta \cos\theta}{\bar{\nu} \cos\theta - \eta \sin\theta}, \tag{A}$$

$$\bar{\kappa} = \frac{\omega'}{(\bar{\nu}^2+\eta^2)^{\frac{1}{2}}} = \frac{\theta'}{(\bar{\nu}^2+\eta^2)^{\frac{1}{2}}} + \frac{\bar{\nu}\eta' - \eta\bar{\nu}'}{(\bar{\nu}^2+\eta^2)^{\frac{3}{2}}}, \tag{B}$$

whence formulae (3·2) of both papers imply that

$$\kappa = \frac{\theta'}{(\nu^2+\epsilon^2\eta^2)^{\frac{1}{2}}} + \frac{\epsilon(\nu\eta' - \eta\nu')}{(\nu^2+\epsilon^2\eta^2)^{\frac{1}{2}}}. \tag{C}$$

Formula (C) corrects the erroneous expression for κ by adding the second term on the right-hand side of (C). Since this term is of order ϵ, the analysis in the remainder of both papers is unaffected by this correction. (The analyses of higher-order terms do not include a study of corrections to the curvature.)