

# Yang Ph.D. Thesis Errata 3-18-92

The following were discovered after the thesis was bound:

Page 31, Third line from bottom

“Hendricks” should read “Hendricks and Marble”

Page 32, Line 2

“Hendricks” should read “Hendricks and Marble”

Page 32, Lines 3 and 4

“his” should read “their”

Page 32, Line 11

“R” should read “ $R_0$ ”

Page 32, Line 21

The expression should read

$$= \frac{|\nabla \rho|}{\rho} \frac{\Delta p}{\rho} \sin \theta \int_0^\infty \delta(x - V_s t) dt$$

Page 32, Line 22

The expression should read

$$= \frac{1}{V_s} \frac{\Delta \rho}{\rho} \frac{\Delta p}{\rho} \sin \theta \delta(R - R_0).$$

Page 32, Line 25

The expression should read

$$= \int_{r=0}^\infty \int_{\theta=0}^\pi \frac{1}{V_s} \frac{\Delta \rho}{\rho} \frac{\Delta p}{\rho} \sin \theta \delta(R - R_0) r dr d\theta$$

Page 33, Top of Table 5.1

“Hend.” should read “H-M”

Page 34, Line 6

“Hendricks (Hend.)” should read “Hendricks and Marble (H- M)”

Page 34, Lines 10 and 14

“Hendricks” should read “Hendricks and Marble”

Page 34, First line of Footnote 9

The expression should read

$$\bar{\omega}(r, \theta) = (1/V_s) (\Delta \rho / \rho) (\Delta p / \rho) \sin \theta \delta(R - R_0)$$

Page 34, Second line of Footnote 9

The expression should read

$$\bar{\omega}(r, \theta) = \bar{\omega}_{max} \sin \theta \delta(R - R_0)$$

Page 35, Line 11

The expression should read

$$\tau = \frac{H W}{\Gamma}$$

Page 38, Line 6

The expression should read

$$\bar{U} = \frac{\bar{\Gamma}}{2\pi} \left[ \frac{1}{2\bar{y}_\infty} + \sum_{n=1}^{\infty} \left\{ \frac{1}{2n\bar{h}} - \frac{1}{2n\bar{h} - 2\bar{y}_\infty} \right\} + \sum_{n=1}^{\infty} \left\{ \frac{1}{2n\bar{h} + 2\bar{y}_\infty} - \frac{1}{2n\bar{h}} \right\} \right]$$

Page 40, Line 6

The last integral should read

$$\frac{2}{3} \int_0^\pi \bar{R}_B^3(\theta, \epsilon) \cos\theta \, d\theta$$

Page 44, Line 23

The expression should read

$$\bar{p}_1^2 = \frac{1}{8} \bar{\omega} \bar{R}_0$$

Page 45, Line 7

The expression should read

$$\bar{p}_2^3 = -\frac{1}{32} \bar{\omega} \bar{R}_0$$

Page 45, Line 23

The expression should read

$$\bar{p}_3^4 = \frac{1}{96} \bar{\omega} \bar{R}_0$$

Page 46, Line 12

The expression should read

$$\bar{p}_4^5 = -\frac{1}{256} \bar{\omega} \bar{R}_0$$

Page 46, Line 16

The expression should read

$$\bar{r}_5 = \frac{1}{64} \bar{R}_0 \cos\theta - \frac{3}{128} \bar{R}_0 \cos 5\theta.$$

Page 47, Line 3

The expression should read

$$\bar{p}_1^6 = -\frac{7}{384} \bar{\omega} \bar{R}_0$$

Page 47, Line 4

The expression should read

$$\bar{p}_5^6 = \frac{1}{640} \bar{\omega} \bar{R}_0$$

Page 47, Line 20

The expression should read

$$\begin{aligned} \frac{\bar{R}_B}{\bar{R}_0} &= 1 - \left(\frac{1}{4} \cos 2\theta\right) \epsilon^2 + \left(\frac{1}{16} \cos 3\theta\right) \epsilon^3 + \left(-\frac{1}{64} + \frac{5}{192} \cos 4\theta\right) \epsilon^4 + \left(\frac{1}{64} \cos \theta - \frac{3}{128} \cos 5\theta\right) \epsilon^5 \\ &+ \left(-\frac{1}{1024} + \frac{21}{512} \cos 2\theta + \frac{77}{15360} \cos 6\theta\right) \epsilon^6 + O(\epsilon^7) \end{aligned}$$

Page 54, Line 6

The expression should read

$$\omega = \frac{1}{V_s} \frac{\Delta \rho}{\rho} \frac{\Delta p}{\rho} \sin\theta \, \delta(R - R_0)$$

Page 54, Line 8

The expression should read

$$I_x(\bar{t} = 0^+) = \int_{r=0}^{\infty} \int_{\theta=0}^{\pi} \left( \frac{1}{V_s} \frac{\Delta \rho}{\rho} \frac{\Delta p}{\rho} \sin\theta \, \delta(R - R_0) \right) (\rho r \sin\theta) (r dr d\theta)$$

Page 54, Line 11

The expression should read

$$= \frac{\pi}{2} \frac{1}{V_s} \frac{\Delta p}{\rho} \Delta \rho R_0^2 .$$

Page 82, Line 16

The word “Computation” ends the header and the word “The” begins a new paragraph

Page 85, Line 13

“(Figure 7.36” should read “(Figure 7.36)”

Page 96, Line 12

The expression should read

$$f_s = \frac{2(2)}{2(2) + 3.76(28) + 2(16)} = 0.028.$$

Page 96, Line 17

The expression should read

$$f \approx 1.5f_s = 1.5(0.028) = 0.042.$$

Page 207

$\tilde{e}_n$  should read  $\hat{e}_n$

Page 338, Figure 8.3

“EARLY” and “LATE” should be switched in the legend