Shock Waves (1992) 2:125

Shock Waves

Erratum

A generalisation of the theory of geometrical shock dynamics

J.P. Best

Materials Research Laboratory (MRL) – DSTO, P.O. Box 50, Melbourne 3032, Australia

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In Best (1991), equation (173) should read

$$\begin{aligned}\delta\xi(t+\delta t) &\approx \left(\left|\frac{\partial \mathbf{x}(\xi(t),t)}{\partial \xi(t)}\right|^2 + 2a_0 \frac{\partial \mathbf{x}(\xi(t),t)}{\partial \xi(t)}\right. \\ &\cdot \left(M(\xi(t),t)\frac{\partial \mathbf{n}(\xi(t),t)}{\partial \xi(t)}\right. \\ &\left.\left. + \frac{\partial M(\xi(t),t)}{\partial \xi(t)}\mathbf{n}(\xi(t),t)\right)\delta t\right)^{\frac{1}{2}} \delta\xi(t) \\ &\approx \left(1 + a_0 M(\xi(t),t)\frac{\partial \mathbf{x}(\xi(t),t)}{\partial \xi(t)}\right. \\ &\left. \cdot \frac{\partial \mathbf{n}(\xi(t),t)}{\partial \xi(t)}\delta t\right)\delta\xi(t)\end{aligned} \tag{173}$$

and equation (175) should read

$$\begin{aligned}\frac{\delta\xi(t+\delta t)-\delta\xi(t)}{\delta\xi(t)\delta t} &\approx a_0 M(\xi(t),t)\frac{\partial \mathbf{x}(\xi(t),t)}{\partial \xi(t)} \\ &\cdot \frac{\partial \mathbf{n}(\xi(t),t)}{\partial \xi(t)}\end{aligned} \tag{175}$$

The reference to the paper by Lighthill should read as set out below.

References

Best JP (1991) A generalisation of the theory of geometrical shock dynamics. Shock Waves 1(4):251-273

Lighthill MJ (1949) The diffraction of blast I. Proc Roy Soc London A 198:454-470