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Corrections to some expressions in

"On the propagation of a multi-dimensional shock of arbitrary strength"

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In our paper, which we published in this journal (Vol. **94**, 1985, 27–42), the algebraic expressions for the coefficients $B_1(\mu)$, $B_2(\mu)$ and $B_3(\mu)$ contain some errors. The theory and the conclusions in the paper remain unaffected. The expressions are

$$\frac{\partial}{\partial \eta} = \cos\Theta \frac{\partial}{\partial x_2} - \sin\Theta \frac{\partial}{\partial x_1} \tag{45}$$

$$B_1 = -\frac{2\mu\{2+\mu(1-\gamma)\}}{8+5\mu-3\gamma\mu-\mu^2(1-\gamma^2)} \tag{47}$$

$$B_2 = \frac{\mu(1+\gamma)\{2+\mu(1-\gamma)\}}{\{8+5\mu-3\gamma\mu-\mu^2(1-\gamma^2)\}(1+\mu)} \tag{48}$$

and

$$\begin{aligned} B_3 = &-2\mu(1+\mu)\{2+\mu(1-\gamma)\}\{2+\mu(\gamma+1)\}/[8\mu(1+\mu) \\ &+\{2+\mu(1+\gamma)\}\{4+\mu(3-\gamma)\} \\ &+\sqrt{2}\{2+\mu(1+\gamma)\}^{1/2}\{4+8\mu+\mu^2(3-\gamma)\}]. \end{aligned} \tag{55}$$

Consequently, the table 1 of the paper should be corrected as:

Table 1. Comparison between Whitham's coefficient and the corresponding coefficient obtained by us for $\gamma = 1{\cdot}4$.

μ	M	B_1	B_3	$\left\lvert\frac{B_3-B_1}{B_1}\right\rvert$	B_2
0·0	1	0	0	—	0
0·1	1·06	−0·0495	−0·0474	0·0424	−0·0529
0·2	1·12	−0·0937	−0·0905	0·0342	−0·0937
0·5	1·3	−0·2083	−0·2027	0·0269	−0·1667
0·75	1·43	−0·2790	−0·2812	0·0079	−0·1913
1·0	1·58	−0·3280	−0·3477	0·0601	−0·1967
1·25	1·73	−0·3571	−0·4030	0·1289	−0·1905
1·5	1·9	−0·3695	−0·4474	0·2108	−0·1770
2·0	2·24	−0·3571	−0·5039	0·4111	−0·1429
2·5	2·26	−0·3125	−0·5185	0·6592	−0·1071
3·0	3·16	−0·2521	−0·4923	0·9528	−0·0756
3.5	3·86	−0·1862	−0·4262	1·2890	−0·0496
4·0	5	−0·1205	−0·3215	1·6680	−0·0289
4·5	7·42	−0·0580	−0·1791	2·0879	−0·0008
$\mu\to 5-0$	$M\to\infty$	$-\frac{1}{5}(5-\mu)$	$-0{\cdot}394(5-\mu)$	2·55	$-\frac{2}{15}(5-\mu)$

In the above table M refers to the Mach number of the shock which is defined as the ratio of the shock velocity to the sound velocity ahead of the shock. From the table we see that for smaller values of $\mu(\mu < 1)$ the coefficients B_1 and B_3 agree well, while for higher values of μ, they differ significantly.