

CORRIGENDUM

‘Free convection from a flat plate’,

by H. S. TAKHAR, *J. Fluid Mech.* vol. 34, 1968, pp. 81–9.

I am indebted to Professor L. S. Han of the Ohio State University for pointing out to me that, since the values of the temperature difference $T_w - T_\infty$ used in equations (7) and (16) of my paper are not the same, we cannot cancel this factor after equating values of the expressions (25) and (27) at $x = l$. We should instead modify equations (15), (17) and (18) as follows:

$$\eta^* = \left[\frac{Ng\beta}{4\nu^2} \right]^{\frac{1}{4}} \frac{y}{(x-a)} = C_1 \frac{y}{(x-a)^{\frac{3}{2}}}, \quad (15)$$

$$(T - T_\infty) = (T_w - T_\infty) \theta(\eta^*) = N(x-a)^{-\frac{3}{2}} \theta(\eta^*), \quad (17)$$

$$\psi^*(\eta^*) = 4\nu C_1 (x-a)^{\frac{3}{2}} f(\eta^*). \quad (18)$$

As a result of these modifications the new form of (30) giving the ratio a/l is

$$\frac{a}{l} = 1 - \frac{\left[\int_0^\infty F'^2 d\eta / \int_0^\infty f'^2 d\eta^* \right]^{\frac{1}{2}}}{\left[\int_0^\infty F'H d\eta / \int_0^\infty f'\theta d\eta^* \right]^{\frac{1}{2}}}. \quad (30)$$

For the ratio C of the values of $T_w - T_\infty$ at $x = l$ for the insulated plate and for heated plate we have

$$\frac{\left[\int_0^\infty F'H d\eta / \int_0^\infty f'\theta d\eta^* \right]^{\frac{1}{2}}}{\left[\int_0^\infty F'^2 d\eta / \int_0^\infty f'^2 d\eta^* \right]^{\frac{1}{2}}}.$$

Values of the modified ratio a/l and C are given below for different values of the Prandtl number:

Pr	a/l	C
0.5	0.3592	0.6909
0.733	0.3572	0.6709
1	0.3643	0.6591
2	0.3713	0.6333
5	0.3789	0.6089
10	0.3835	0.5971

Figure 7 of my paper is no longer true; and figures 2 and 5 should be interchanged.