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CORRIGENDUM

'On fluid flow induced by a rotating magnetic field'

By H. K. Moffatt

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I am grateful to Dr E. Dahlberg who has recently (Dahlberg 1972) drawn attention to the following points in the above paper which require amendment.

(i) There is an error in equation (2.7) which affects equations (2.8) and (2.9) but none of the subsequent equations or discussion. The operator $\nabla^2 - 2/r^2$ in (2.7) should be replaced by $\nabla^2 - 1/r^2$, and the order of the Bessel functions in (2.8) and (2.9) should be 1 and not $\sqrt{2}$ (see footnote to Sneyd 1971, p. 818).

(ii) The sketch of the lines of force (figure 1) suggests a slight transverse displacement far from the cylinder; this is spurious.

(iii) The parenthetical statement after equation (2.15) "(This is certainly untrue if R_m is not large, in which case the flow would have a steady and a fluctuating component)" should be deleted.

(iv) The complementary function given after (2.16) should be

$$\psi_2 = A'r^2 + B'\log r + C'r^2\log r + D'$$

instead of

$$\psi_2 = A'r^2 + B'\log r,$$

and the word 'finite' in the following line should be replaced by 'regular'. This correction does not affect any of the subsequent equations or conclusions.

(v) The statement in § 3 that "the linearized equations describing the evolution of the perturbation are not influenced at all by the Lorentz force" should be qualified by the phrase "provided the Hartmann number is not large". The same qualification is in fact required to justify the approach adopted in determining the mean flow.

(vi) The phrase "For mercury, $\lambda/\nu \approx 10^6$" should be replaced by "For mercury at room temperature, $\lambda/\nu \approx 6 \times 10^6$"; the interpretation of the orders of magnitude given in table 1 requires corresponding minor adjustment.

REFERENCES

Dahlberg, E. 1972 *AB Atomenergi, Studsvik, Sweden, Rep.* AE-447.
Sneyd, A. 1971 *J. Fluid Mech.* **49**, 817.