where a and b are any positive real constants satisfying

$$2b + abp - a^2q^2 + 2\alpha^2b^2 > 0, \qquad ap - 1 + b^2\alpha^4 > 0. \tag{16}$$

Lessen's criterion [3] corresponds to $p = 0$, $q = 1$ of (16).

We may choose some values for a and b to get a criterion for jet flow. If we put

$$a = K/\alpha p, \qquad b = Kq^2/\alpha p^2, \tag{17}$$

where K is an arbitrary constant such that $K \geq 1$ and $K^2q^4/p^4 \geq 1$, Eq. (16) is satisfied for all α and (15) becomes

$$(Rq)^2 < 8\left[\alpha^4 + \frac{p^2}{Kq^2}\alpha^3 - \frac{p^4}{K^2q^4}\alpha^2 + \left(1 - \frac{p^2}{K^2q^2}\right)\frac{p^4}{Kq^4}\alpha + \frac{p^6}{K^2q^6}\right]. \tag{18}$$

Equation (18) seems to be the criterion which is suitable for jet type flow. As α tends to be zero, the flow will be stable for a finite Reynolds number.

References

(1) J. L. Synge, *Hydrodynamical stability*, Semi-centennial Pub. Am. Math. Soc. Vol. 2, New York 1938, pp. 227-269.
(2) C. C. Lin, *On the stability of two-dimensional parallel flow: Part I—General theory*, Q. Appl. Math. **3**, 117-142 (1945).
(3) M. Lessen, *Note on a sufficient condition for the stability of general, plane parallel flows*, Q. Appl. Math. **10**, 184-186 (1952).

A note on my paper

A FORMULA FOR AN INTEGRAL OCCURRING IN THE THEORY OF LINEAR SERVOMECHANISMS AND CONTROL-SYSTEMS

Quarterly of Applied Mathematics, X, 205-213 (1952)

By HANS BÜCKNER

Replace D_n^{-1} by D_{n-1}^{-1} in formula (36′), replace a_1^2 by a_1^3 in formula (44), replace $2Y$ by Y in formula (45). Formula (46) is correct and corresponds to corrected formula (44).

The author wishes to thank Mr. Kenneth Geohegan and Mr. Edwinn Kinnen for their check of formulae (36′) and (44).

BOOK REVIEWS

50–100 Binomial tables. By Harry G. Romig. John Wiley & Sons, Inc., New York, and Chapman & Hall, Ltd., London, 1953. xxvii + 172 pp. $4.00.

The value of the individual terms and the sum of the first x terms of $[P + (1 - P)]^n$ are given for n in the range 50 to 100 in steps of 5 and p in the range 0.01 to 0.50 in steps of 0.01 to six decimal places although the last place is doubtful. The introduction, written in a clear and concise manner, describes the use of the tables, its application to quality control and its relation to the ratio of the incomplete β-function to the complete β-function. The tabulated data are easy to read but the nature of the entries prevents a more uniform tabulation.

S. L. Levy