THE OSCILLATIONS AND THE STABILITY OF ROTATING MASSES WITH MAGNETIC FIELDS

R. K. KOCHHAR and S. K. TREHAN

Dept. of Mathematics, Panjab Universlty, Chandigarh, India

Abstract. It is shown that when a magnetic field is present along the axis of rotation, the point of bifurcation, where the Jacobi ellipsoids branch off from the Maclaurin spheroids, occurs at a value of eccentricity higher than the value $e = 0.81267$ that obtains in the absence of a magnetic field. This is in contrast with the effect of a toroidal magnetic field which, as has been shown earlier, leaves the point of bifurcation unaffected.