

Indian Journal of Mathematics

Volume 10, No. 1, 1968

CONTENTS

Fu Cheng Hsiang

ON THE NÖRLUND SUMMABILITY OF A FOURIER 1-7

V. Mital

THE EFFECT OF PLATE TEMPERATURE OSCILLATIONS ON THE MAGNETO
-HYDRODYNAMIC THERMAL BOUNDARY LAYER ON A SEMI-INFINITE
FLAT PLATE 9-17

Summary: Forced convection laminar boundary layer flow of a viscous incompressible and electrically conducting fluid from a semi-infinite flat plate, when the plate temperature oscillates in time about a constant non-zero mean while the free stream is isothermal, has been studied. An approximate integral method is used to integrate the Navier-Stokes and energy equations. Separate solutions for low and high frequency ranges are obtained. It is found that in the low frequency range the oscillating component of the temperature in the boundary layer always lags behind the plate temperature oscillations while the rate of heat transfer has a phase lead. In the high frequency range the temperature in the boundary layer is of the 'shear-wave' type.

N. Singh

ON $|\bar{N}, \mathcal{P}_n|$ SUMMABILITY FACTORS OF INFINITE SERIES 19-24

G. Das

PRODUCT OF NÖRLUND METHODS 25-43

A.P. Gupta

TRANSVERSE VIBRATIONS OF A BOX BEAM 45-57

Abstract: The transverse vibrations of a box type beam (i.e. a rectangular beam hollow in the middle) are considered. The secondary effects of shear forces and rotary inertia are retained and the sides and the top and bottom of the beam are taken to bend through different angles due to shear. The equations of motion are derived by applying Hamilton principle. These equations are solved for the case of a cantilever and the frequencies obtained for various modes are compared with those for Timoshenko equation.

Arun Verma and Manjari Upadhyay

CERTAIN TRANSFORMATION OF THE PRODUCTS OF BASIC BILATERAL
HYPERGEOMETRIC SERIES 59-71

2

(Miss) Usha Kakkar

A NOTE ON ABSOLUTE SUMMABILITY (γ) OF AN INFINITE SERIES

73-82

Hans Raj Gupta

AN ARITHMETICAL SUM

83-86
