Dedicated to Professor Ion PĂVĂLOIU on his 60th anniversary

FURTHER SOLUTIONS OF FALKNER-SKAN EQUATION

F. M. ALLAN[1]

Key words: modified similarity transformation, Falkner-Skan, similarity solution

Abstract. The nonclassical transformation is employed to derive the similarity differential equation

$$| 1 + \lambda | f''' + ff'' + \beta (1 - f'^{2}) = 0 ,$$

which governs the fluid flow past a moving wedge with included angle $\pi \beta$, and the parameter λ is the ratio of boundary velocity to the free stream velocity. In this research the behavior of the solution as $\lambda \to -1$ in investigated.