

Unsteady Stagnation-Point Flow towards a Shrinking Sheet with Radiation Effect

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Abstract : In this paper, the problem of unsteady stagnation-point flow and heat transfer induced by a shrinking sheet in the presence of radiation effect is studied. The transformed boundary layer equations are solved numerically by the shooting method. The influence of radiation, unsteadiness and shrinking parameters, and the Prandtl number on the reduced skin friction coefficient and the heat transfer coefficient, as well as the velocity and temperature profiles are presented and discussed in detail. It is found that dual solutions exist and the temperature distribution becomes less significant with radiation parameter.

Keywords : heat transfer, radiation effect, shrinking sheet unsteady flow

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