

Viscous Flow with Second-Order Slip Velocity over a Stretching Sheet

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Z. Naturforsch. **65a**, 1087 – 1092 (2010); received March 2, 2010

In this paper, viscous flow with a second-order slip condition over a permeable stretching surface is solved analytically. The current work differs from the previous studies in the application of a new second-order slip velocity model. The closed form solution reported is an exact solution of the full governing Navier-Stokes equations. The effects of slip and mass transfer parameters are discussed.

Key words: Similarity Solution; Stretching Surface; Navier-Stokes Equations; Analytical Solution; Exact Solution; Slip Flow.