TECHNICAL BRIEFS

**Steady Laminar Convective Flow with Variable Properties Due to a Porous Rotating Disk**

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The present paper investigates the effects of variable properties (density (ρ)(ρ)⁠, viscosity (μ)(μ)⁠, and thermal conductivity (κ)(κ)⁠) on steady laminar flow and heat transfer for a viscous fluid due to an impulsively started rotating porous infinite disk. These properties ρρ⁠, μμ and κκ are taken to be the functions of temperature. The system of axisymmetric nonlinear partial differential equations governing the steady flow and heat transfer are written in cylindrical polar coordinates and are reduced to nonlinear ordinary differential equations by introducing suitable similarity parameters. The resulting steady equations are solved numerically by using Runge-Kutta and Shooting methods, and the effects of the relative temperature difference and suction/injection parameters are examined.

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